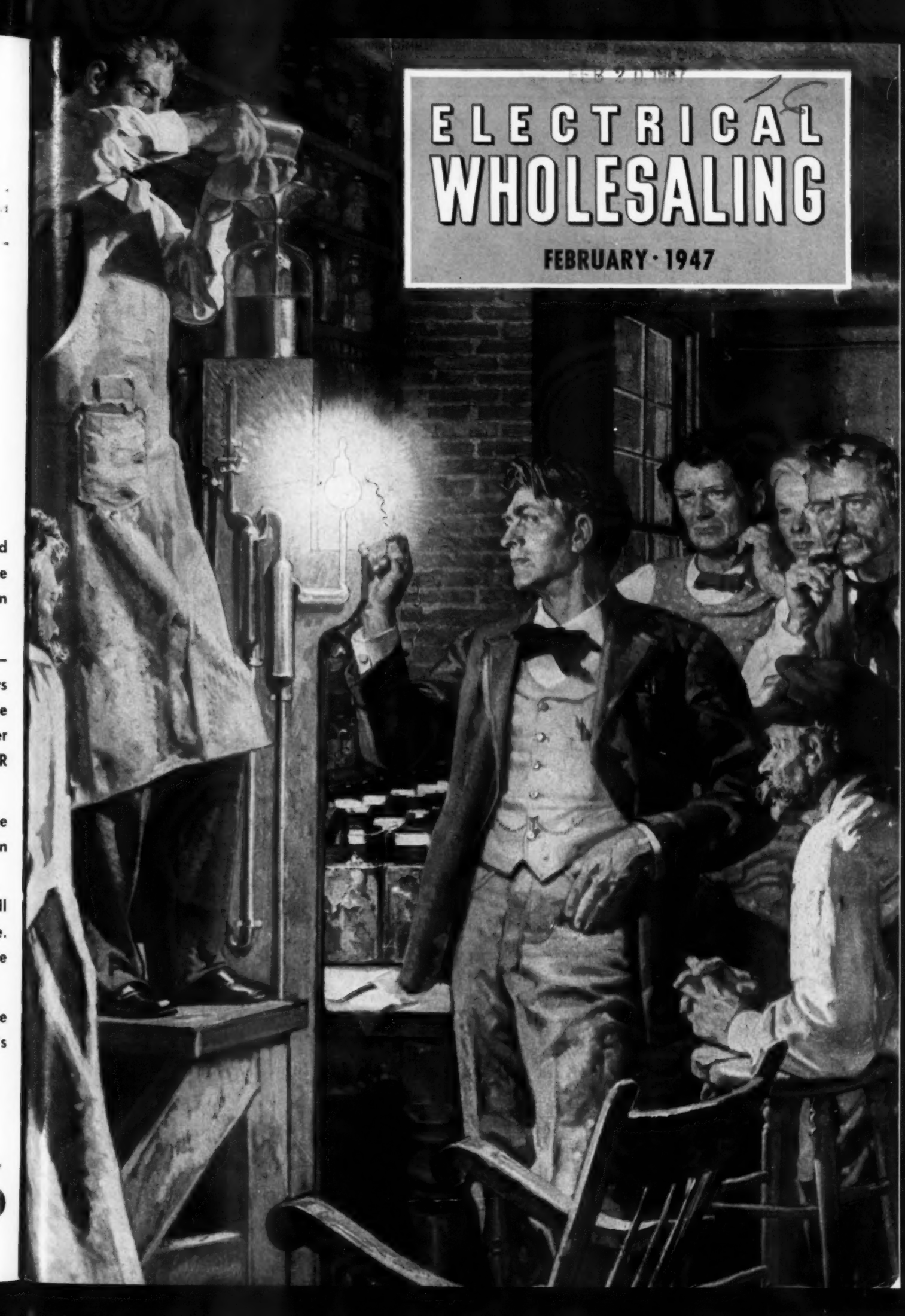

ELECTRICAL
WHOLESALING
FEBRUARY · 1947

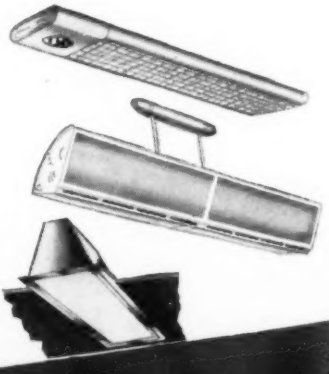
LOOK TO *Leader* FOR

CONTROLLED MANUFACTURING

MATCHED AND BALANCED PARTS MEAN SIMPLER INSTALLATION, EASIER MAINTENANCE

Leader IUO-240 . . . A typical example of Leader's Controlled Manufacturing. A durable, heavy duty industrial unit. Ideal for continuous runs. Easily installed, eliminates all installation extras.

There's never any "jig-saw puzzle" manufacturing at Leader's three strategically located plants . . . no assembling of misfit parts. With Leader's "under-one-roof" facilities, fabrication, finishing, assembly and inspection follow each other with clock-like precision. This gives assurance that every Leader Fluorescent Luminaire is balanced, with all integral parts perfectly matched for maximum efficiency, simple installation and easy maintenance. For Modern Design, Precision Engineering and Controlled Manufacturing . . . LOOK TO LEADER.



Leader Officer VL-440, with adjustable Direclite . . . Wafer thin. High gloss white enamel louvers for maximum soft light diffusion. Direclite ideal for "spotlight" merchandising, singly or in runs.

Leader Glass Enclosed Unit GL-440 . . . Luxury lighting at moderate cost. Ribbed glass construction plus diffusion louver give pleasing soft lighting effect. Especially fine for stores, offices and schools.

Leader Trofferlite TG-240 . . . Sturdily built to permit ceilings to be hung from the units. With or without glass panels and louvers. Ideal for new construction or remodeling. For use in single units or continuous runs.

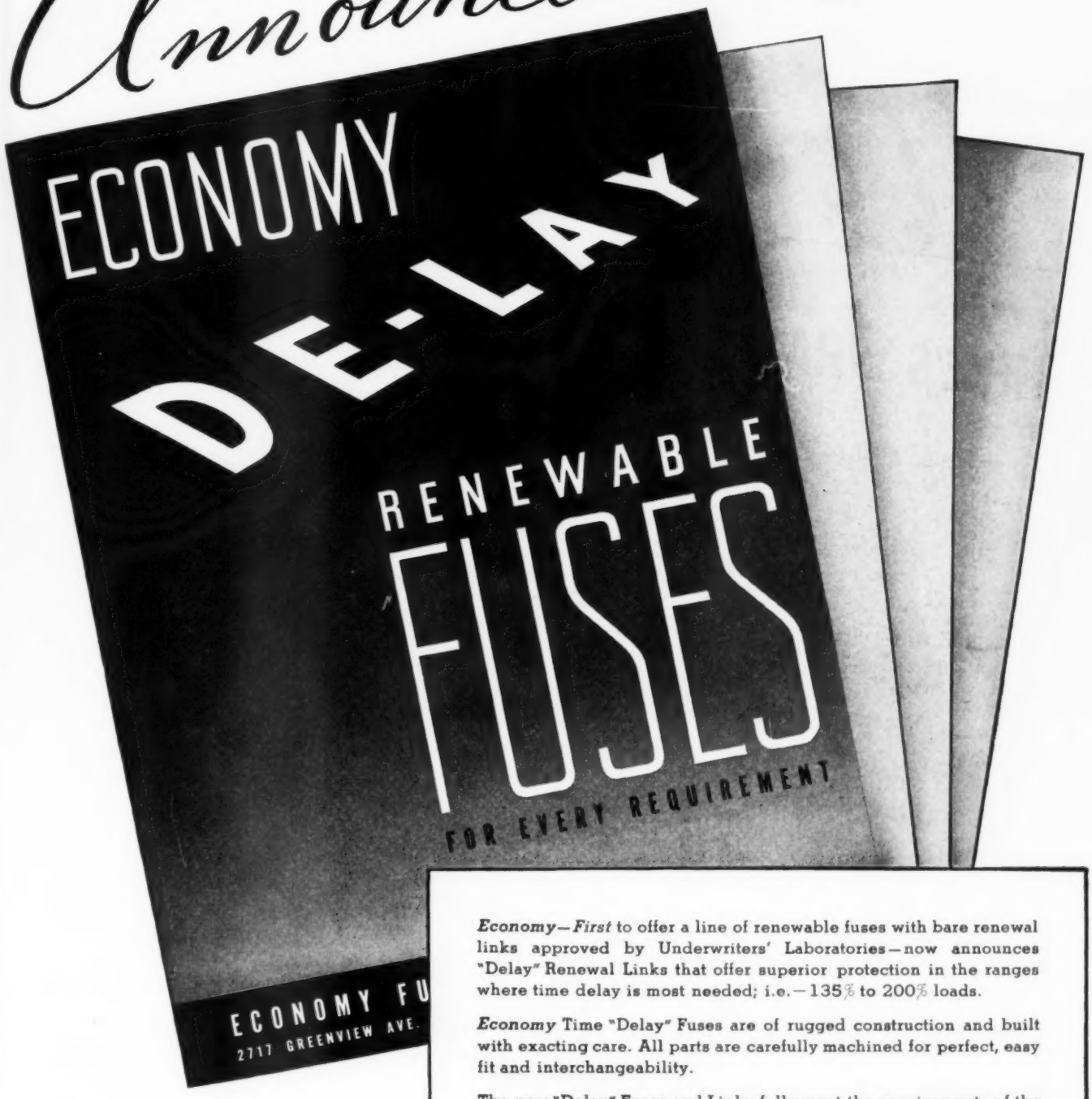
Better electrical wholesalers everywhere distribute Leader fixtures. There is a friendly Leader representative in your area.

LEADER ELECTRIC MANUFACTURING CORP.

[illegible] BROADWAY - CHICAGO 40, ILLINOIS

WEST COAST FACTORY—2040 LIVINGSTON ST., OAKLAND 6, CALIFORNIA

Announcement



***Economy**—First* to offer a line of renewable fuses with bare renewal links approved by Underwriters' Laboratories—now announces "Delay" Renewal Links that offer superior protection in the ranges where time delay is most needed; i.e.—135% to 200% loads.

Economy Time "Delay" Fuses are of rugged construction and built with exacting care. All parts are carefully machined for perfect, easy fit and interchangeability.

The new "Delay" Fuses and Links fully meet the requirements of the Standards for Fuses, and are available in 1 to 600 amperes, both 250 and 600 volts.

Easy to buy—carried in stock by leading Electrical Wholesalers.
Easy to use—quickly disassembled to insert renewal link.

Send for new catalog, illustrated above.

ELECTRICAL WHOLESALERS

Investigate the ADDED Advantages that Economy Fuses now offer you with the addition of Time "Delay" Renewal Links and Renewable Fuses.

Protection WITH ECONOMY

ECONOMY Fuse and Mfg Co.

2717 N. Greenview Ave., Chicago 14, Illinois

Representatives in all Principal Cities

2061

It's NEW! The

HERE'S WHAT YOU GET

SPACE-SAVING DESIGN! Needs only a 2′ x 4′ space.

FULL DISPLAY! Six full length bins for assorted sizes. May be served from either side.

RICH APPEARANCE! Constructed of natural-finish hard wood with Masonite panels.

BIG STORAGE SPACE! Plenty of room provided for understock—makes neat and attractive display.

VERSATILE MERCHANDISER! Can be used as an island display or wall unit.

BARGAIN PRICE! A piece of fine store furniture for only $13.20, f.o.b. shipping point. Shipped knocked-down with complete instructions for easy assembly.

A MERCHANDISER THAT SPEEDS UP LAMP SALES

This compact, attractive lamp table is a natural for hardware, electrical, and department stores. It's a complete selling unit and a top-notch silent salesman all rolled into one.

We've priced this merchandiser to move. You cannot duplicate it at anywhere near $13.20. Order one now for quick delivery. Stock it with Westinghouse bulbs and see for yourself how it increases your sales—and profits. Lamp Division, Westinghouse Electric Corp., Bloomfield, N. J.

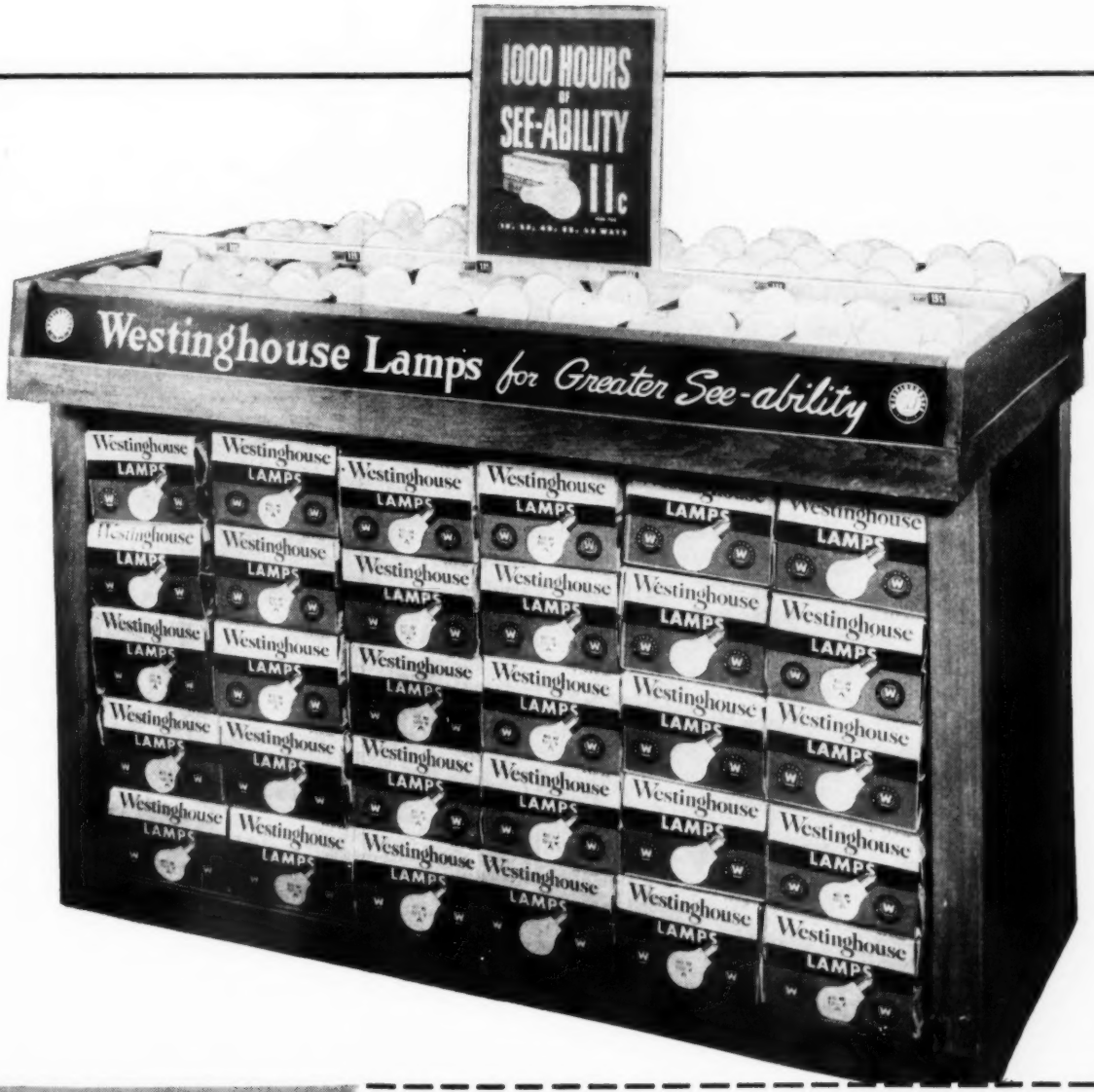
Westinghouse

PLANTS IN 25 CITIES . . . OFFICES EVERYWHERE

LAMPS FOR SEE-ABILITY

Westinghouse Lamp

DeLuxe 2'x4' Bulb Table



Order One Now!

Immediate delivery from stock on hand.

Westinghouse Electric Corp.
Lamp Division, Bloomfield, N. J.

Date .....

Please ship me at once the Westinghouse Deluxe 2' x 4' (X-305) bulb table at the price of $13.20 f.o.b. shipping point.

Name .....

Firm .....

Address .....

City ..... Zone ..... State .....

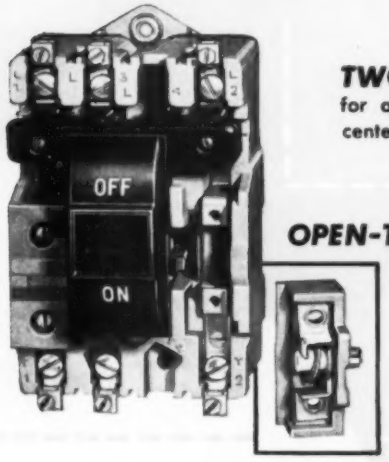
E Wh-2

FIVE BASIC ADVANTAGES IN *New* Square D LOOM SWITCH

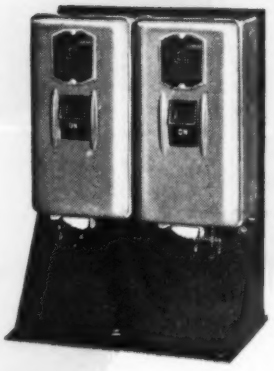
A manual starter specifically designed for textile mill service—in Sizes 0 and 1

Reliable motor control is essential to effective textile mill operation. Every loom is needed to help offset present shortages. Evaluate the following features in terms of low installation expense, minimum maintenance and continued operation in YOUR mill.

1. **Line terminals at bottom OR top simplify wiring.** Starters mounted on pedestals (*right*) are usually fed from an electrical distribution system in the floor, whereas those mounted on the machine base are powered from overhead. All terminals are raised to facilitate connections.
2. **Recessed handle** prevents damage caused by foot operation or accidental collision. Ridges in steel cover give additional handle protection.
3. **Protected type overloads** are suitable for grouping several motors on a single set of fuses, typical of loom installations.
4. **Porcelain base** is non-carbonizing—therefore ideal for humid locations. Contact chambers are deeply recessed to provide generous electrical clearances and exclude falling lint.
5. **Sturdy enclosure** is not easily damaged by accidental collision. Cover is interlocked to prevent removal when starter is "ON". Single padlock may be used to hold cover in place and starter in "OFF" position.



TWO-UNIT MOUNTING on existing pedestals for adjacent motors is made practical by 5" mounting centers and knockout-type mounting holes.



OPEN-TYPE STARTER shows toggle operating mechanism, convenient terminals, deep porcelain base and 2-screw mounting strap. ***Insert:*** Melting alloy protected type overload relay, removed.

for complete information, write Square D Company, 4041 N. Richards Street, Milwaukee 12, Wis.

SQUARE D COMPANY

DETROIT • MILWAUKEE • LOS ANGELES

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CONTENTS — FEBRUARY, 1947

INDUSTRY-WIDE BARGAINING—Death Trap for Business, Suicide for Free Labor . . . . . Editorial by James H. McGraw, Jr. 50

Times and Trends . . . . . O. Fred. Rost 53

Business Index—Sales and Inventories, Regional Analysis . . . . . 65 and 68

EDISON CENTENNIAL SECTION 73

The Communication Tree 74

Edison and His Achievements 75

Distribution System and Lamp Manufacturing Contrasts 78

The "Tree of Light" 82

Edison's Incandescent Lamp 83

For Good Wiring Jobs Go "All Out" With Contractors . . . . . A. M. Brinkman 87

Merchandising Electrical Products for the Farm . . . . . Charles G. Pyle 91

Wholesaler Makes Quonset Hut His Headquarters . . . . . H. J. Emerson 94

1947 Code Changes and Aluminum Wire . . . . . H. H. Weber 97

Cooperation With Plant Engineer Sold On—The Bias Lighting Job . . . . . Hoyt O. Smith 105

Radar—Electronics Detective In War Safeguards Ships In Peacetime 107

The Camera Clicks at Chicago 109

News Notes from N.E.W.A. . . . . Alfred Byers 110

Electrical Wholesaling News . . . . . 57 and 112

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330 West 42nd Street, New York 18, N. Y.

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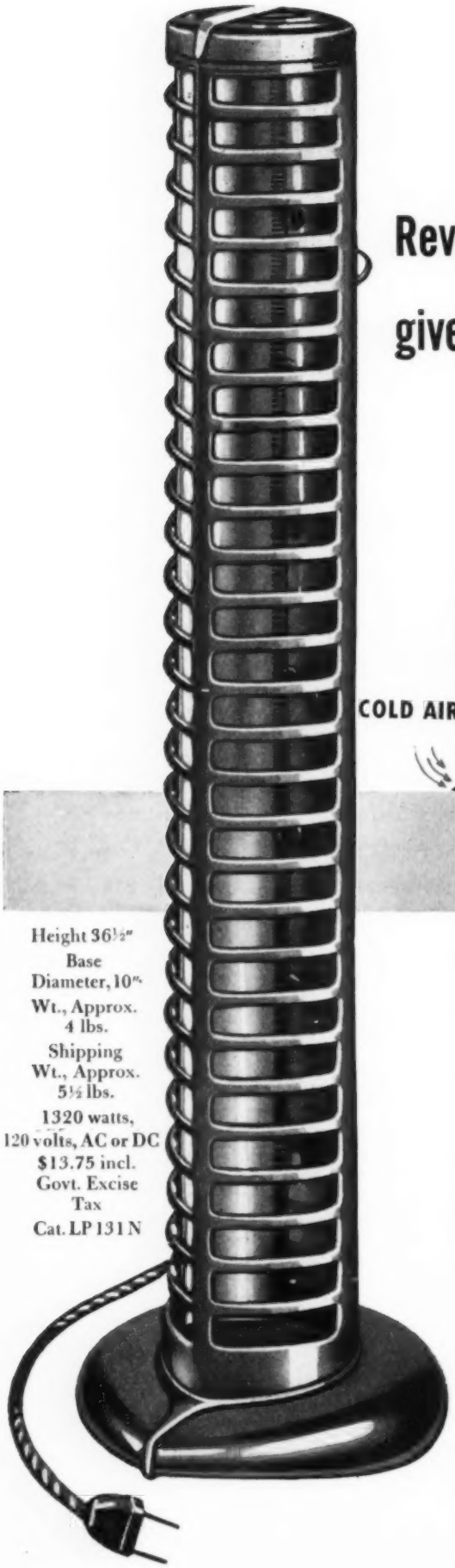
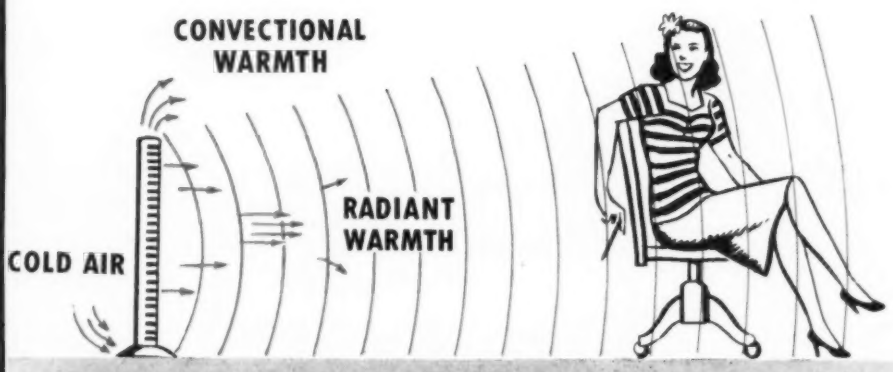
Revolutionary design of Longfella' portable gives you *2 KINDS OF WARMTH*



Height 36½"
Base Diameter, 10"
Wt., Approx. 4 lbs.
Shipping Wt., Approx. 5½ lbs.
1320 watts, 120 volts, AC or DC
$13.75 incl. Govt. Excise Tax
Cat. LP 131 N



HEAD-TO-HEELS RADIANT WARMTH
PLUS OVER-ALL CONVECTIONAL WARMTH

Only the Thermador Longfella' offers *two kinds of warmth*... head-to-heels, infra-red, *radiant* warmth from its long, slender reflector—*plus* all-over-the-room, *convectional* warmth through its uniquely designed top.

No wonder, then, that the Longfella' is far more effective than the ordinary portable ... *that watt for watt it is the most efficient auxiliary radiant heating unit ever designed.*

Greater efficiency is but half the story of the Longfella's long, slender revolutionary design. No other portable requires so little floor space—fits into *any* corner of *any* room. And no other portable's so easy to store—tucks away snugly in the smallest closet.

Every home and office needs at least one of these remarkable Longfella's ... for quick, clean warmth in the bathroom—safe, anxiety-free warmth in the playroom—pure, electric warmth to banish cold spots everywhere.

For complete details, write Dept. EW-2.

THERMADOR LONGFELLA'

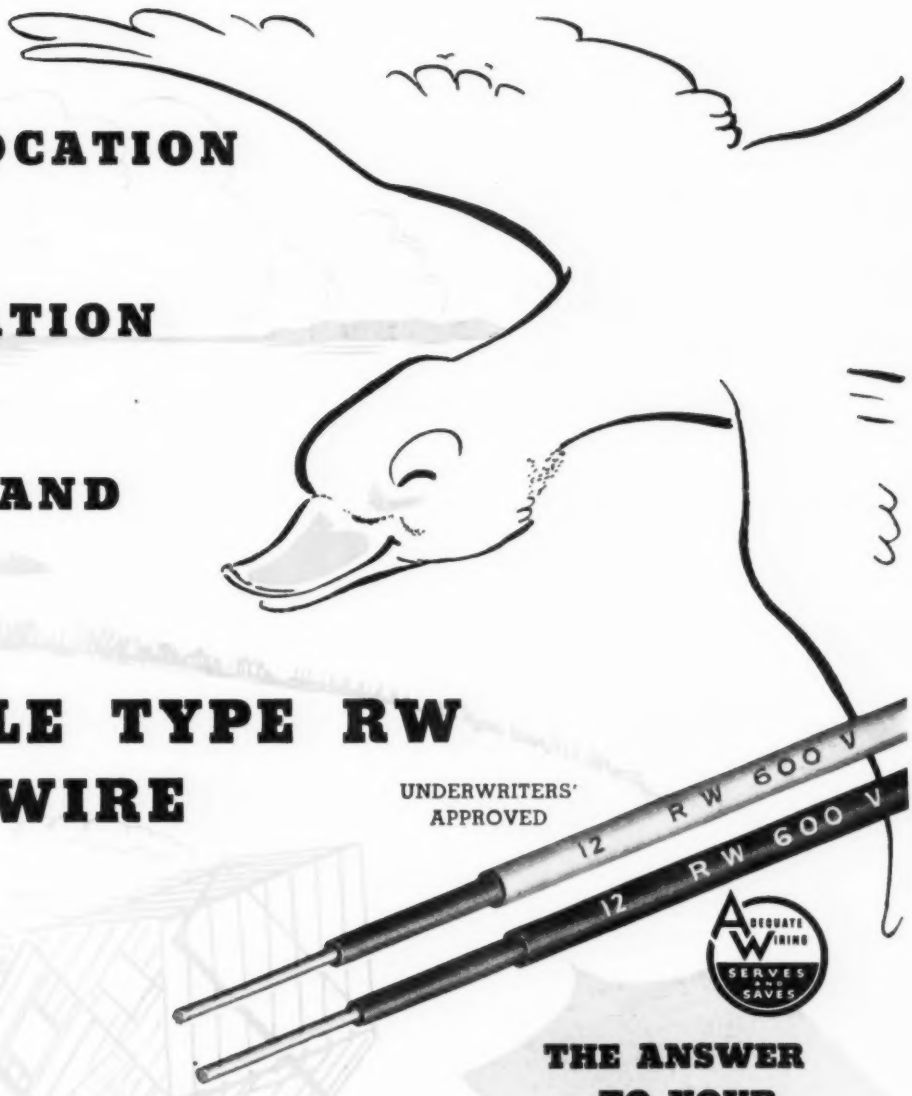
"Seven Leagues Ahead"

Thermador Electrical Mfg. Co., 5119 District Blvd., Los Angeles 22

THAT WET LOCATION

IS AN INVITATION

TO DUCKS...AND



ROME CABLE TYPE RW BUILDING WIRE

THE ANSWER TO YOUR LEAD PROBLEM!

The insulation used on Rome Cable Type RW Building Wire has been especially developed to maintain its electrical stability with long-time immersion in water, and it is this feature which insures satisfactory performance in wet locations.

The ideal substitute for lead sheathed building wire, Rome Cable Type RW is fully approved by Underwriters' Laboratories for use in damp basements and warehouses, or placed underground in concrete slabs or other masonry in direct contact with the earth, in wet locations, or where condensation of moisture within the raceway is likely to occur.

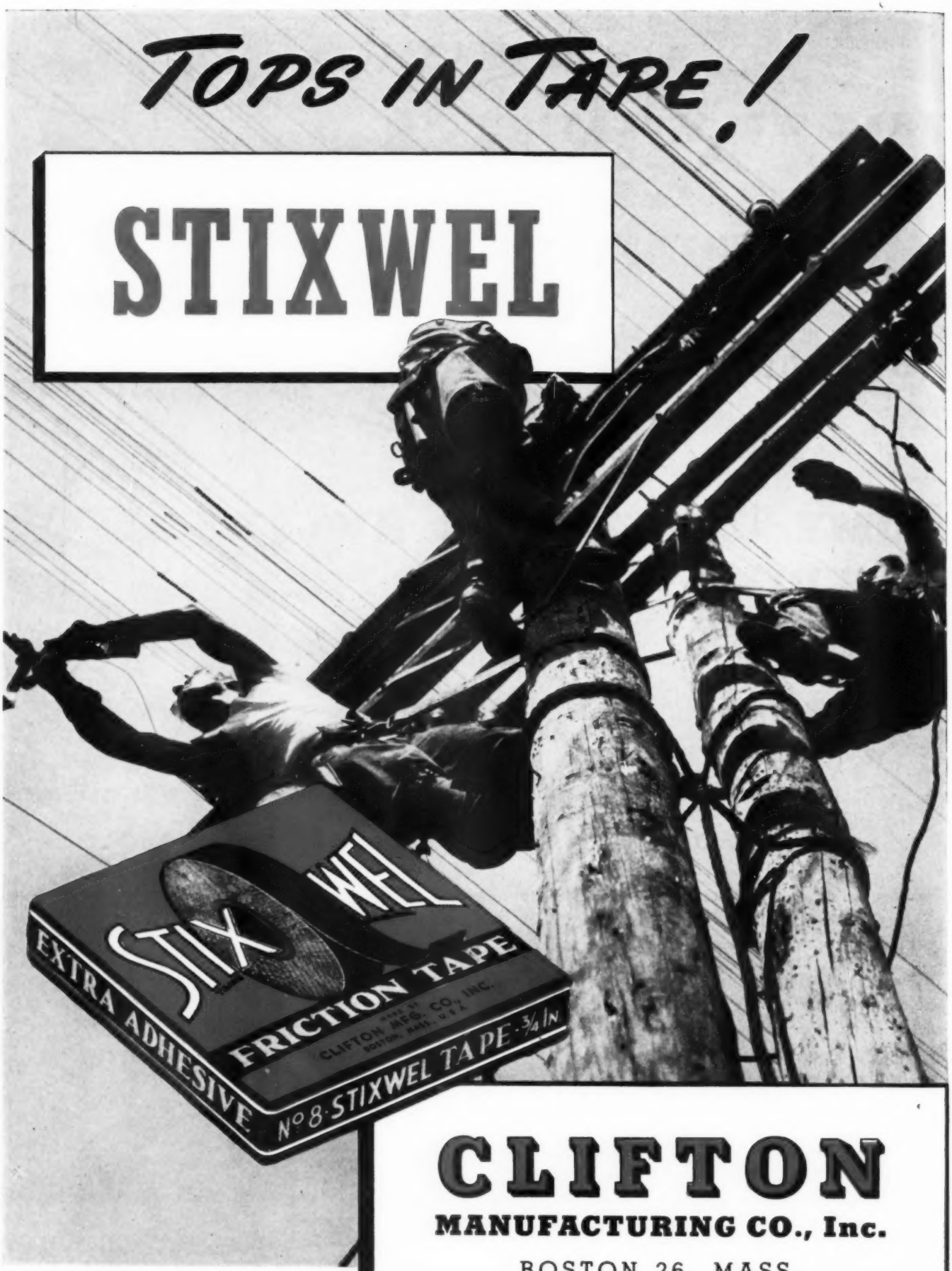
FROM BAR TO FINISHED WIRE

ROME CABLE CORPORATION

ROME • NEW YORK

TOPS IN TAPE!

STIXWEL



CLIFTON
MANUFACTURING CO., Inc.

BOSTON 26, MASS.

MANUFACTURERS OF QUALITY TAPES SINCE 1888

RUGGED CONSTRUCTION

Plant lighting equipment is particularly subjected to hard usage. Fast, careless maintenance; fumes, gases, and humidity; accumulated dirt; all these things are enemies to the life of a lighting fixture.

But GUTH Maze-Lites are built to last . . . in spite of abuse. They are built of Zinc-Coated Bonderized Steel, with the Reflector surface finished "300° White".

This synthetic enamel finish resists rust and abrasion, will not chip, peel, check, craze, or crack. It clings tenaciously to the "toothed" surface of the steel for the life of the unit. (See detail at right.)

Furthermore, GUTH Maze-Lites are ribbed for added strength and rigidity. All parts are easily accessible for simple maintenance, avoiding the need for excessive handling. In short, GUTH Maze-Lites are designed and built to stand up under the demands of industrial lighting conditions.

EFFICIENT ILLUMINATION

Engineers realize the importance of better light for better sight. More productive work, safer work, with less danger of accidents; these are the rewards of intelligently planned lighting.

With GUTH Maze-Lite Fluorescent Luminaires, high levels of controlled light are available. GUTH Maze-Lites are more than mere "holders for lamps". They are engineered to reflect light where it is wanted . . . shield it where it is not wanted. They provide economical, efficient, easy-on-the-eyes *seeing* light . . . the kind of light that stimulates better work.

GUTH MAZE-LITES are also available with Quickliter Ballasts for starterless operation! May be used at irregular or low voltage, and operate at temperatures as low as 0° F.

WRITE TODAY FOR DETAILS ABOUT GUTH MAZE-LITE

THE EDWIN F. GUTH CO. · 2615 Washington Ave. · St. Louis 3, Mo.

Guth — LEADERS IN LIGHTING — Since 1902

Here's what to look for in *TAPE!*

CORRECT UNWINDING TENSION
NON-RAVELING—CLEAN CUTTING
HIGH TENSILE STRENGTH
TIGHT STICKING—FAST HOLDING
GOOD DIELECTRIC QUALITIES
STRAIGHT, EASY TEAR-OFF
GUARANTEED FOOTAGE
NON-DETERIORATING

You will find all these qualities in ACCURATE tapes. ACCURATE tapes—friction and rubber—are made in the modern ACCURATE plant devoted exclusively to the manufacture of fine electrical tapes. Although ACCURATE tapes are produced to exacting standards under rigid quality control and from the finest materials obtainable, they cost no more.

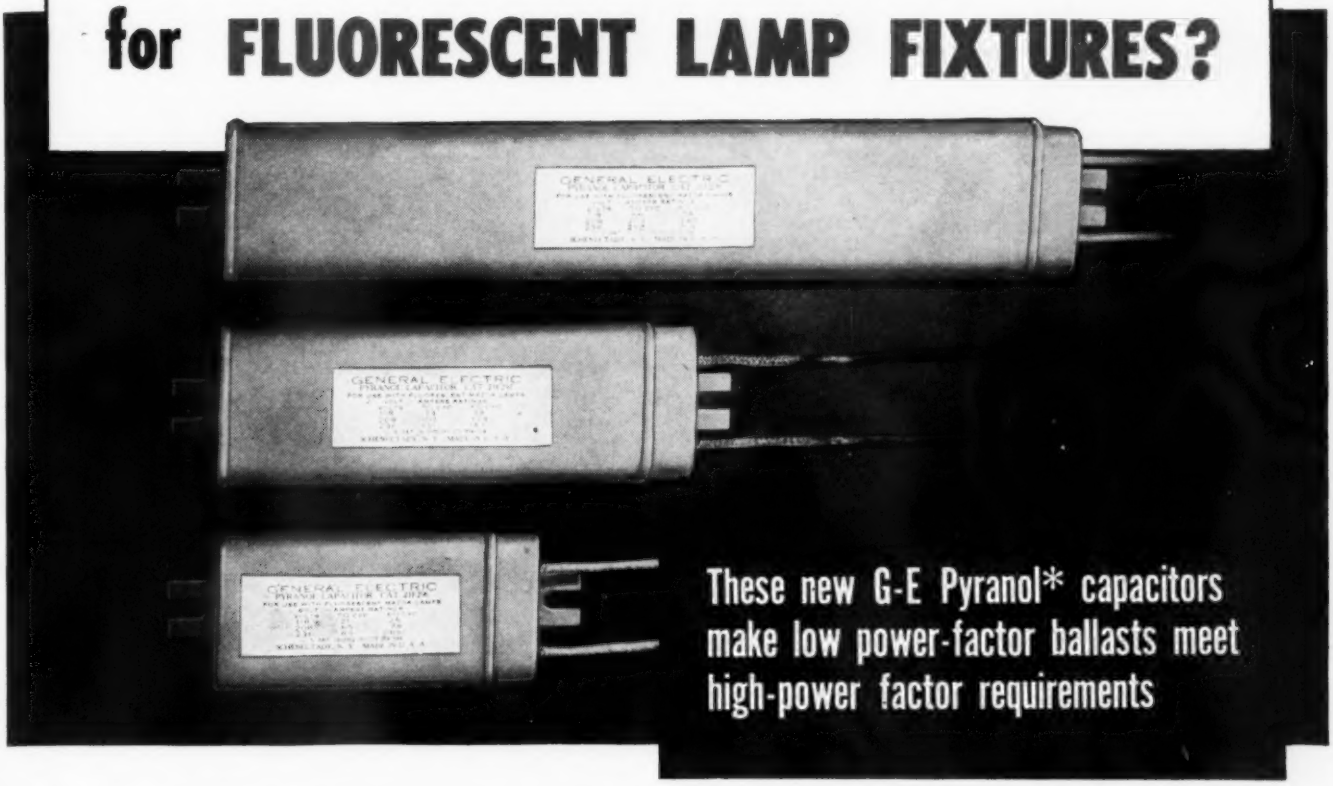
Here's the tape electricians use and buy by brand name — ACCURATE! Keep both friction and rubber types in stock. ACCURATE tapes *sell!* They're consistently advertised to the trade in magazines with nation-wide coverage — powerful merchandising messages that mean profits for you!

a mc

ACCURATE MFG. COMPANY

General Offices & Plant: Garfield, New Jersey

need POWER-FACTOR IMPROVEMENT for FLUORESCENT LAMP FIXTURES?



If your present supply of high-power-factor ballasts is inadequate for your high-power-factor fixture requirements, use the new G-E Type FL capacitors.

These new Type FL capacitors**, when simply installed in the fixture with available ballasts, bring low-power-factor equipment up to acceptable power-factor levels.

The size and weight of these new capacitors permit easy assembly in new or existing fixtures. A short shipping schedule on Type FL capacitors make them available for current fixture business—*now—when you need them.*

These hermetically sealed Pyranol impregnated units, featuring new low cost as well as small, light-weight design, offer the same high quality as millions of G-E capacitors now used in fluorescent installations.

Three designs are available for operation at 50 or 60 cycles, 118, 208 or 236 volts a-c, and when used individually, or in combinations as suggested, provide a minimum of 85 to 95 percent power factor for a single 15-watt lamp, or up to four 40-watt lamps. For further details, write to *Apparatus Department, General Electric Company, Schenectady 5, N. Y.*

***Listed by Underwriters' Laboratories, Inc.*

DATA FOR 60 CYCLE, 118 VOLTS A-C

Lamp Size Watts	1 Lamp	Approx. P-F	2 Lamps	Approx. P-F	3 Lamps	Approx. P-F	4 Lamps	Approx. P-F
15-T-8	S	95	M	86	L	95+	L	86
15-T-12	S	86	S & M*	95+	L	88	S & L*	87
20-T-12	S	90	M	85	M & L*	91	L	85
30-T-8	M	85	L	85	M & L*	86	L & L*	86
40-T-12	M	86	L	86	M & L*	86	L & L*	86

Symbols: S—Cat. No. 21F296; M—Cat. No. 21F297; L—Cat. No. 21F298 *Two capacitors in parallel

VOLT-AMPERE RATINGS

Volts A-C	21F296		21F297		21F298	
	50 Cycle	60 Cycle	50 Cycle	60 Cycle	50 Cycle	60 Cycle
118	21	25	33	39	66	78
208	65	78	102	123	204	245
236	83	100	131	157	262	314

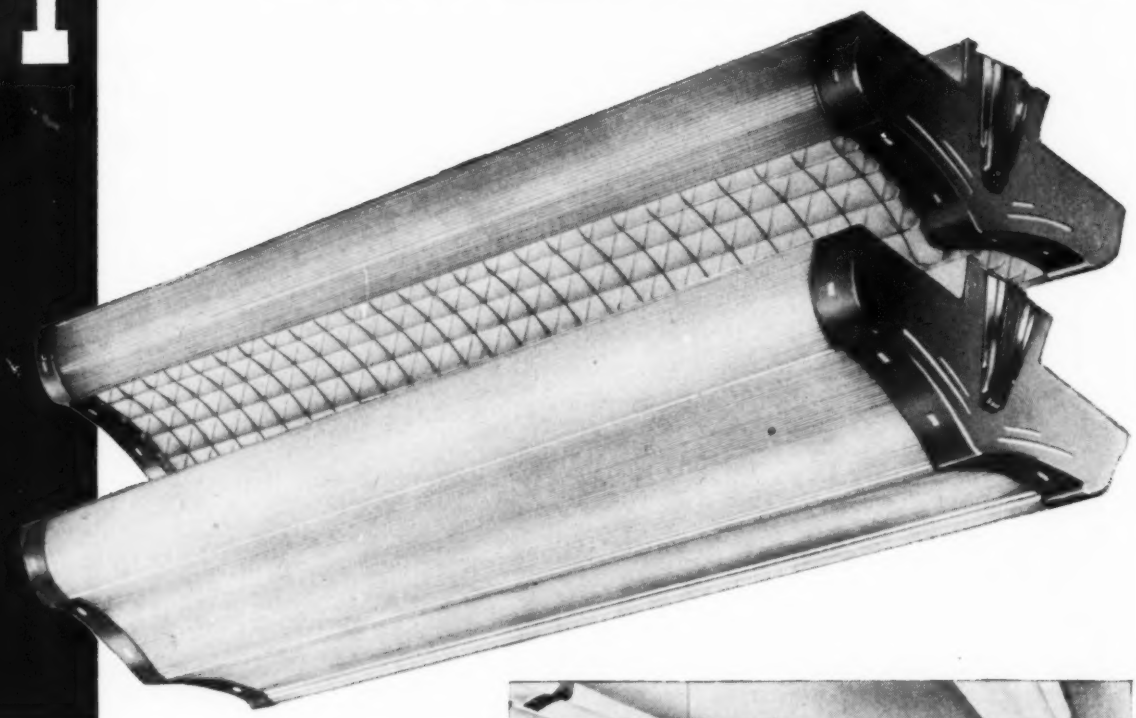
Pyranol is General Electric's registered trade name for a noninflammable liquid dielectric for capacitors.

GENERAL ELECTRIC

407-119-5700

LPI Constellation

STAR PERFORMER IN A BRILLIANT CAST



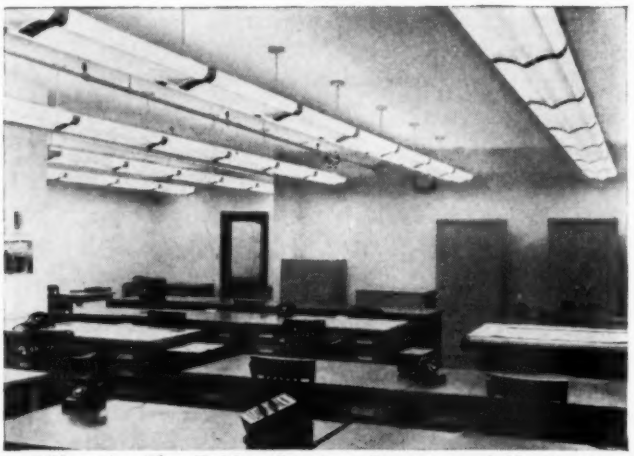
The Constellation keeps alive the LPI tradition of the best that's new in lighting. Here are functional beauty, engineering skill, and utility—all in one fine fluorescent fixture.

Constellations are available in two or four light, louvred bottom or all glass 40 watt units. They can be mounted singly or in continuous runs, and mounting—either on ceiling surface or from stem hangers—is a simple matter. Carefully designed housings include every necessary installation aid. Constellations are equipped with easy-to-use mounting plates and hangers, and readily understandable installation instructions are included in every Constellation carton.

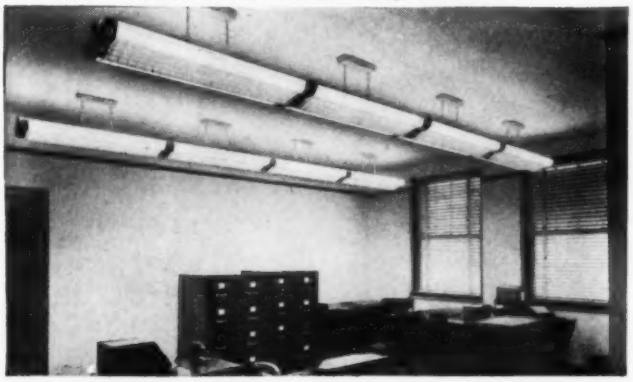
LPI engineers have designed the Constellations to meet all specifications as recommended by the Utilities Research Laboratories.

Write today for your copy of the new 16 page Constellation brochure, LPI bulletin number 400.

LIGHTING PRODUCTS INC.
HIGHLAND PARK, ILLINOIS



(Above) —The Public Service Company of Northern Illinois chose glass bottom, four light, 40 watt Constellations for one of their many offices.



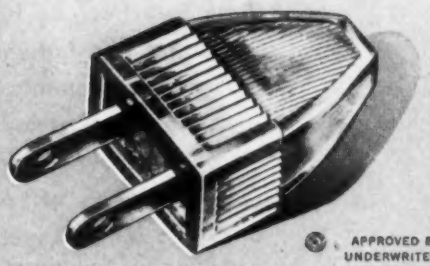
(Above) — Louvred Constellations brighten an office of the Public Service Company of Oklahoma.

STRIKING NEW NITE-T-LITE COUNTER DISPLAY MAKES SALES AUTOMATICALLY

Place this colorful new display, with its 24 Nite-T-Lites, in a busy customer-traffic spot. It works like magic, making sales without time or effort on your part.

Encore!

more GLOW for more sales and profits as Littelfuse scores again with a better NITE-T-LITE*



APPROVED BY UNDERWRITERS' LABORATORIES

Sales quickly climbed to the 3,350,000 mark when Nite-T-Lite first was introduced. Now, the new improved version of this amazing neon-glow light heads for even greater popularity. Its glow is bigger, and better diffused. An attractive etch-effect design conceals the element, and prevents glare.

Approved by Underwriters' Laboratories, and leading safety authorities, Nite-T-Lite operates for up to six months for a penny. Just plug it into any 110 to 125 volt AC or DC wall plug or receptacle and it burns continuously for up to a year. Nite-T-Lite's friendly glow safely guides family and guests in darkened halls, bathrooms, bedrooms, and all through the house.

Order a supply today and cash in as Nite-T-Lite catches its second sales-wind and records another smashing merchandising success.

* REG. U. S. PAT. OFF.—PAT. NO. 144877

LITTELFUSE Incorporated

4759 E. RAVENSWOOD — CHICAGO 40, U. S. A.

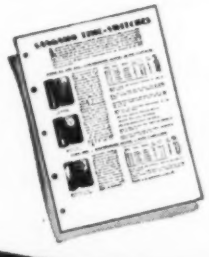
FIRST IN CIRCUIT PROTECTION

FUSES, MOUNTINGS AND ACCESSORIES • CIRCUIT BREAKERS • SWITCHES • NITE-T-LITE • SWITCH-LITE • IGNITION-FRITZ • NEON INDICATORS

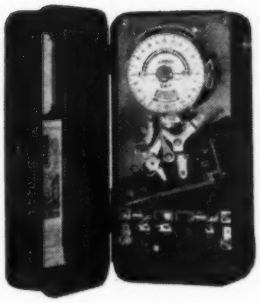
for lighting from dusk to dawn:

SANGAMO *Astronomic-Dial* TIME-SWITCHES

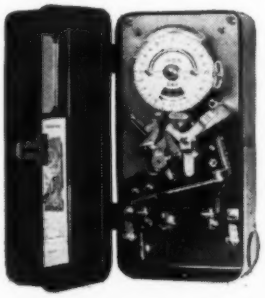
The automatic operation of certain lighting installations is much more convenient when controlled on a "dusk to dawn" basis with fully automatic Sangamo Astronomic Dial Time Switches. By functioning in conformance with the daily changes in the length of the day, Sangamo Astronomic Dials eliminate completely the necessity of periodic resettings of the switch. Another feature of this dial makes possible to set the switch to go "off" any time between 9:30 p.m. and 2:15 a.m., providing an economy measure especially desirable for indoor and outdoor advertising lighting. While production of Sangamo Time-Switches is now at a higher than pre-war rate, the present large backlog suggests placing immediately your orders for future delivery.



Write now for Circular No. 205 which contains compact information on the wide variety of control features available in various forms of SANGAMO Time-Switches.



FORM VSWZ in addition to its Astronomic Dial, this switch is equipped with automatic "carryover", providing for continuous operation during current interruptions.



FORM KAZ Astronomic-Dial equipped, this Form is available in a wide variety of combinations, described in Circular No. 205.

SANGAMO ELECTRIC COMPANY SPRINGFIELD ILLINOIS

Functional Beauty and Efficiency

When quality and appearance are deciding factors on a lighting job . . . your best choice is either the Curtis 70610XE or the Curtis StarLux.

Originally a special design, the 70610XE was created for one particular installation where the customer demanded quality and distinction and was willing to pay for it. Now, this unit is generally available. Modern production methods assure a reasonable price for such jobs as demand beauty, quality and efficiency. For four 40-watt fluorescent lamps per section.

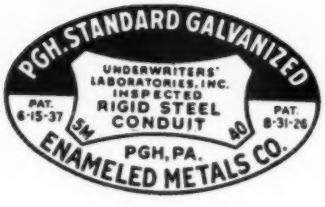
The Curtis StarLux is the outstanding four-lamp pendant luminaire on the market. Like its companion The No. 70610XE, The StarLux is characterized by beauty and efficiency. Some of its output is directed toward the ceiling to create a pleasing and comfortable effect... some of the light is directed downward through the decorative louvers to add intensity below the unit, and the balance flows through the glass panels and diffuses into the room. Strictly a quality item, its price however, appeals to that important class of jobs which are just above the mass market. *Write today for Data Sheets on both of these attractive four-lamp luminaires.*

CURTIS
Lighting
INC.
6135 WEST 65th STREET
CHICAGO 38 • ILLINOIS

PITTSBURGH STANDARD CONDUIT

ENAMELED METALS COMPANY

ETNA, PA.



Agents in Principal Cities

ATLANTA, GA.
Fulwiler & Chapman
702 Whitehall Street
Telephone: Jackson 2146

BALTIMORE 2, MD.
Electrical Sales Company
31 South Calvert Street
Telephone: Calvert 3200

BOSTON 10, MASS.
C. C. Pierce Company
241 Purchase Street
Telephone: Hancock 3112

BUFFALO 3, N. Y.
R. W. Mitscher
Ellicott Square Building
Telephone: Washington 2517

CHICAGO 10, ILL.
J. A. Jaques Company
450 West Superior Street
Telephone: Delaware 0191-0192

DENVER 2, COLO.
Fred E. Staible & Sons
2046 Arapahoe Street
Telephone: Tabor 3991

DETROIT 26, MICH.
J. J. Miner Company
535 East Larned Street
Telephone: Cherry 4105

INDIANAPOLIS 4, IND.
Electrical Jobbers Supplies Co.
404 Merchants Bank Building
Telephone: Lincoln 2678

KANSAS CITY 6, MO.
Walter I. Ferguson & Company
208 Dwight Building
Telephone: Harrison 8349

LOS ANGELES 13, CALIF.
Alexander W. Bromberg
440 Seaton Street
Telephone: Mutual 7087

LOUISVILLE 2, KY.
David D. Schneider
509 Washington Building
Telephone: Jackson 0733

MINNEAPOLIS, MINN.
Ben B. Moore
334 First Street, North
Telephone: Atlantic 1281

NEW YORK 17, N. Y.
Smith & Fetten
295 Madison Avenue
Telephone: Lexington 20731

SAN FRANCISCO 7, CALIF.
Electric Agencies, Inc.
198 Georgia Street
Telephone: Exbrook 4047

ST. LOUIS 10, MO.
Leigh A. Doxsee Company
4030 Chouteau Avenue
Telephone: Newstead 6262

SCRANTON 3, PA.
Maurice C. Lauer
318 Mifflin Avenue
Telephone: 4-1717

EXPORT
Marianno A. Soares
Caixa Postal 3933
Rio de Janeiro, Brazil

Lionel-Essex International Corp.
15 East 26th Street
New York 10, New York
Telephone: Murray Hill 5-1308

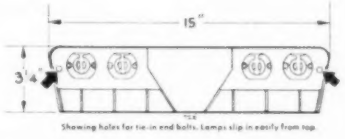
Firefly Super Hi-Lite installation in office of Clark Supply Company, 1330 W. Clybourn St., Milwaukee—Distributors of electrical equipment and air-conditioning units.

FIREFLY *Super* HI-LITE

SAVES TIME AND MONEY
. . . SIMPLE, ONE-MAN INSTALLATION

Ceiling-mounted Super Hi-Lites provide the advantage of "troffer" lighting with greater ease and economy of installation . . . a simple, one-man job. Each unit slips easily into a unique Z-type mount with a single motion. The fixtures are fastened together by two tie-in end bolts, instead of the usual one-bolt connection, giving extra strength and rigidity to the installation, making it easy to get perfect alignment of the fixtures as well as follow the natural contour of the ceiling. The simplicity of Firefly Super Hi-Lite ceiling mounting makes it easy to figure accurate installation costs . . . whether in single units, diagonal mounting or continuous rows.

The Firefly Super Hi-Lite is an unusually slim horizontal-type 4-light unit, only 3¼" deep. The scientific spacing of the bottom louvers gives the 45° angle cut-off from line of vision recommended by lighting authorities. The Super Hi-Lite is remarkably flexible. The quick-removable louvers may be added later to bare tube installations if desired. New Corning Alba-lite glass side panels are practically integral with louvers. Entire unit easy to keep clean.



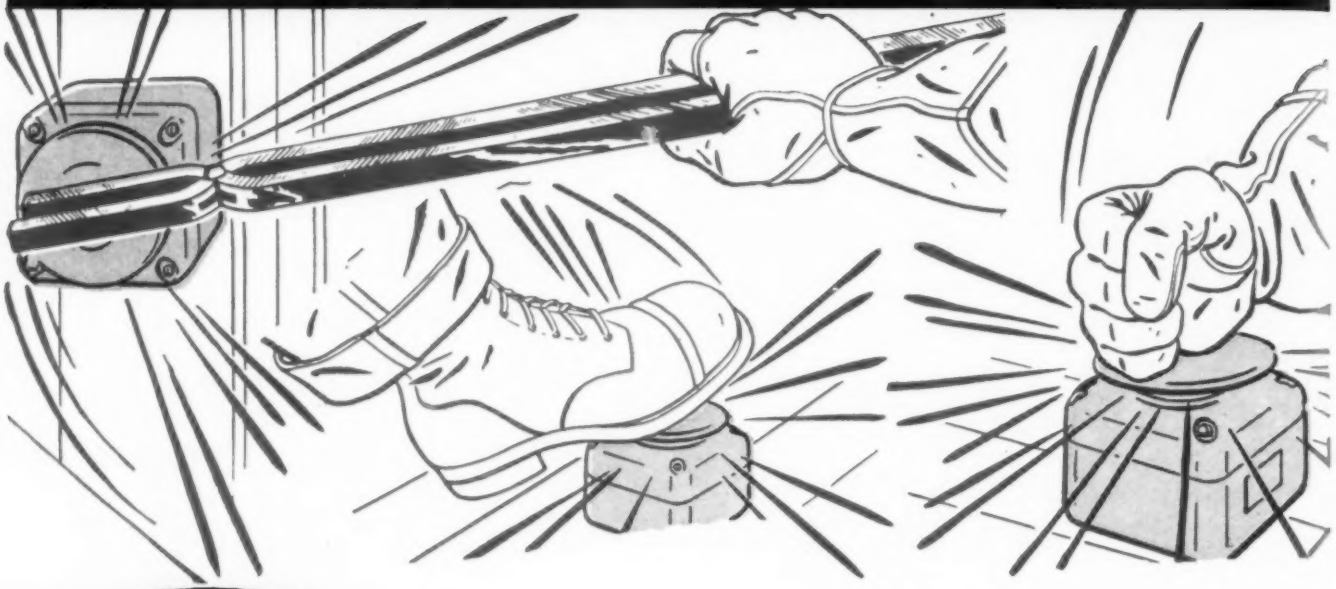
Showing holes for tie-in end bolts. Lamps slip in easily from top.

The Super Hi-Lite is Underwriters Approved . . . union made, finished in quality double-baked, heat-resisting white enamel. Mountable from pendants or direct to ceiling. *Distributed exclusively through leading electrical wholesalers.* Write for literature.

KAHN MANUFACTURING CO., INC.
2051 N. 19th STREET • MILWAUKEE 5, WISCONSIN

THE *Firefly Line* OF FINER FLUORESCENT FIXTURES

ROUGH, RUGGED *and* READY *to* "TAKE IT"—*that's the dependable* "3C" ROUGHNECK Push Button



Type D Form RN Roughneck push button station for palm or foot operation.

HIT IT, KICK IT OR PUNCH IT—the squatty and sturdy Type "RN" ROUGHNECK Push Button Station takes abuse and STILL DOES THE WORK!

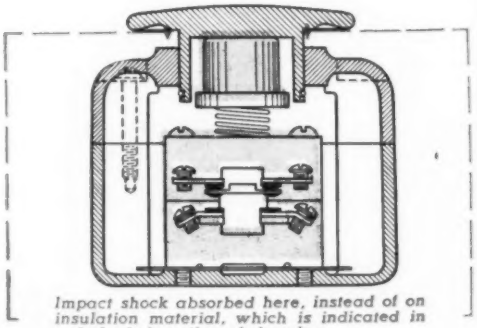
The smooth, heavy cast enclosure and mushroom operating head are so rounded and sloped that severe blows from tongs, foot or fist glance off harmlessly.

There's plenty of bearing area too, so that "Off-Center" operation won't rock the station on its base.

The cross-section drawing at the right shows how the impact is absorbed on the enclosure. Bakelite insulating parts are thus shielded from impact shock.

The Roughneck responds quickly to gentle treatment as well—all that's needed is enough pressure to make contact.

Also available with guard ring for palm operation only.



Impact shock absorbed here, instead of on insulation material, which is indicated in red shaded portion of drawing.

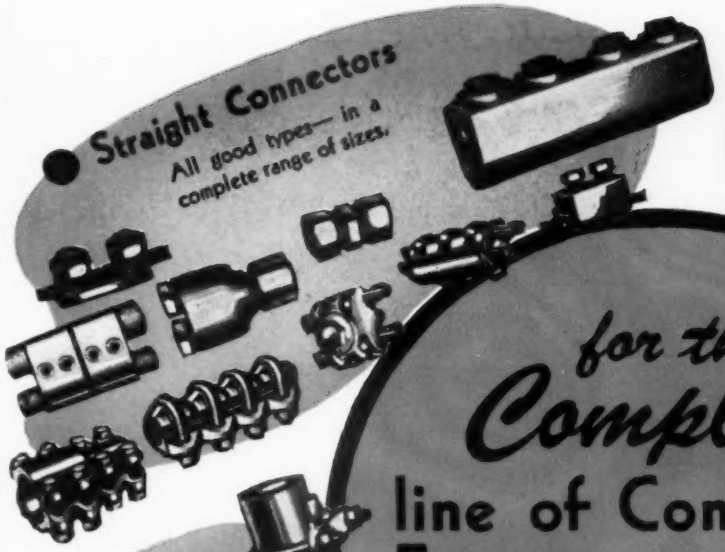
FEATURES

- Heavy duty type "D" Push Button Element.
- Double Break, Silver-to-Silver Contacts.
- Large Electrical Clearances.
- Bakelite Insulating Parts.
- Screwdriver removes and replaces all parts.
- Suitable for floor or wall mounting.
- 3 inch Metal Mushroom Head.

Just one item of the "3C" Electrical Control line — the ideal line for Distributors.

THE CLARK CONTROLLER CO.

EVERYTHING UNDER CONTROL • 1146 EAST 152nd STREET, CLEVELAND 10, OHIO



● **Straight Connectors**
All good types— in a complete range of sizes.

● **Tees—**
Multifit, numerous clamp types, bolted, yoke-and-nut tees, etc.

for the
Complete
line of Conductor Fittings—see the PENN-UNION Catalog

● **Grounding Connectors**
For all combinations of pipe, rod, flat bar, braid, tubing.

● **Lugs—**
Vitite, clamp types, with multi-slit sleeves; also soldering lugs, shrink fit, etc.

● **Service Connectors**
Yoke-and-nut types; service entrance connectors.

You can find the exact fitting you need in the Penn-Union Catalog— practically every good type, in a complete range of sizes. The few here can only suggest the variety.

We also have thousands of other types— new designs are constantly being added. When you need a special conductor fitting for an unusual service, our engineering staff is always ready to help you.

And— Every Connector is Dependable. When you use any Penn-Union fitting, you are sure of a connector that's reliable mechanically and electrically— carefully designed, thoroughly tested, and manufactured under rigid engineering supervision.

Preferred by Leading Users, who have found that "Penn-Union" on a fitting is their best guarantee of unfailing service.

● **And—**
Meter cabinets, bus supports, motor lead connectors, cable taps, fuse clips, etc.

● **And—**
Terminal blocks, elbows, solderless terminal adapters, dead-end clamps, etc.

Sold by Leading Wholesalers

PENN-UNION ELECTRIC CORP.
Erie, Pa.

Canada: Dominion Cutout Company, Ltd., 250 Richmond St. West, Toronto

THE *Complete* LINE OF CONDUCTOR FITTINGS

PENN-UNION

NOMA . . . the

★ There's big news coming in next month's trade magazines

★ Sales will be up in color lights for the dealers who stock the famous NOMA line. With NOMA's imaginative design—NOMA's bright new styling for year 'round use, 1947 will be a banner year for NOMA dealers!

NOMA's undisputed leadership in the field of decorative lighting has been achieved by:

Uncompromising NOMA quality

Dependable NOMA workmanship

Consistent consumer demand created by NOMA's national advertising.

This year—NOMA plans to greatly increase 1946 deliveries—give you more of the NOMA color lights you want. Make 1947 a top year with NOMA, the Greatest Name in Christmas Lighting.

3010—*7 light indoor Berry Bead outfit*—Has Add-on connector . . . fastens upright to branch of tree securely.

3415—*15 light Straight line outfit*—Wires in multiple...has Add-on connector...lamps burn independently.

110—*8 light Series loop type outfit*—Tri-plug connection with open outlet for attaching additional sets.

greatest name in Christmas Lighting

There are surprises in store
at the Noma Toy-Show exhibit

Consumer demand for BUBBLE-LITES . . . NOMA's revolutionary new development in Christmas lighting . . . reached white heat in 1946.

BUBBLE-LITES . . . the greatest innovation in Christmas decoration since the invention of the electric light . . . will become even more popular and profitable in 1947 thru:

Added manufacturing capacity
Attractive, eye-catching packaging and display
Aggressive national promotion.

The NOMA BUBBLE-LITE set radiates charm.

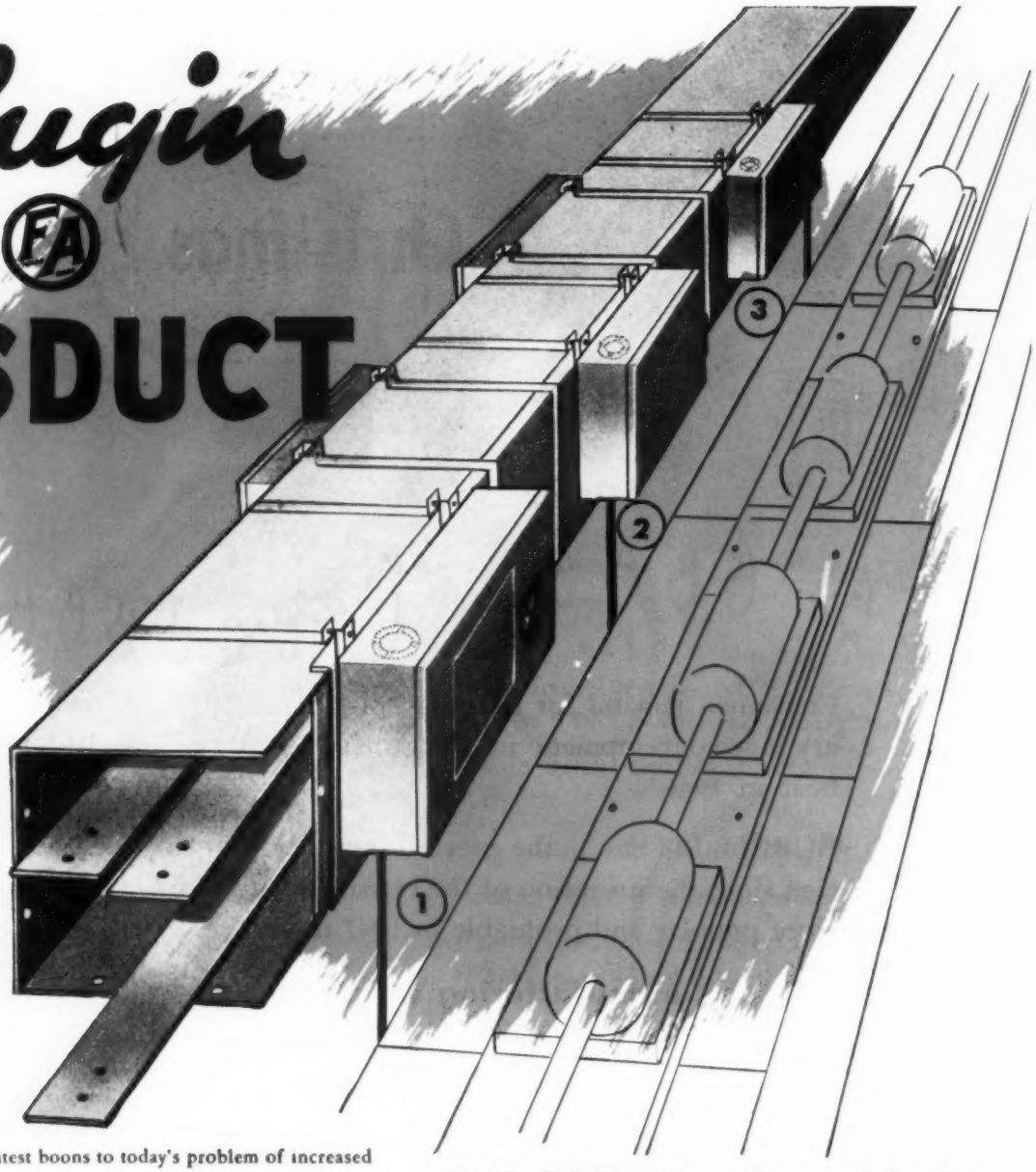
The NOMA BUBBLE-LITE set is alive with bubbling action.

SEE YOU AT THE
TOY FAIR
MARCH 10th to 23rd
EAST ROOM—1st MEZZANINE
HOTEL McALPIN

509—*Noma Bubble-Lites*—Nine shimmering crystal clear candles of bubbling light, set in colorful plastic bases. Completely wired. Has special clip to make attachment to tree easy.

NOMA
ELECTRIC CORPORATION
55 WEST 13TH STREET • NEW YORK 11, NEW YORK

Plugin (FA) BUSDUCT



. . . "One of the greatest boons to today's problem of increased production!" . . .

That is what users say of PLUGIN (FA) BUSDUCT — the modern, convenient, economical and flexible system of power and light distribution.

PLUGIN (FA) BUSDUCT helps speed production by saving thousands of man hours each year, reducing waste motion and lost time by making power available where and when you want it. Plugin outlets every foot of the way make it possible to move and relocate machinery at will and eliminate long and expensive lead-ins with a consequent drop in voltage.

If you want to speed up and increase the productivity of your plant, then install PLUGIN (FA) BUSDUCT—and see the difference.

PLUGIN (FA) BUSDUCT is available in standard ten-foot sections with multiple outlets for any of the following attractively finished, practical plugin units:

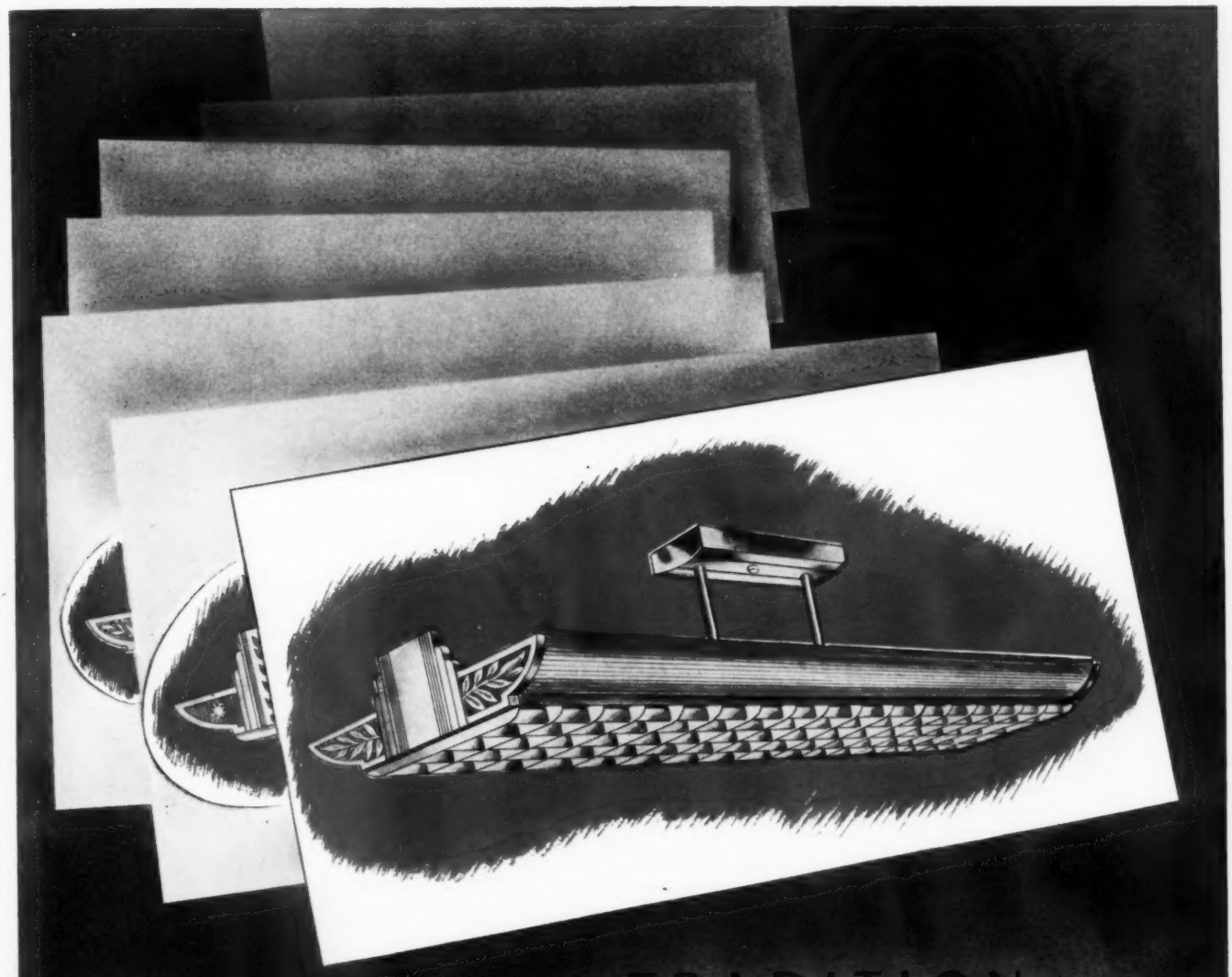
1. **SHUTLBRAK** — Ideal for quick make and break, heavy-duty operation. Capacities: 30 to 200 amps. — 250 and 575 volts.
2. **KLAMPSWITCHFUZ** — Splendid for disconnect service . . . the hinged-type pull out door containing both switch and fuse in one unit. Capacities: 30 to 200 amps. — 250 and 575 volts.
3. **CIRCUIT BREAKER** — Provides automatic-thermal overload protection for circuits and equipment. Capacities: 15 to 225 amps. — 250 and 575 volts.

The Most Economical Path from Power Source to Equipment

MAKERS OF . . .
BUSDUCT
PANELBOARDS
SWITCHBOARDS

Frank Adam
ELECTRIC COMPANY
ST. LOUIS, MISSOURI

SERVICE EQUIPMENT
SAFETY SWITCHES
LOAD CENTERS
ELECTRIC QUIKHETER



TRADITION

Smartness and distinction mark the many new and beautifully styled models now in the course of development. By tradition they, too, will be produced to a standard of efficiency, economy and value worthy of the unusually high esteem and wide acceptance accorded their renowned predecessors. They will assure you an even larger share of the popular price lighting fixture business that lies ahead.

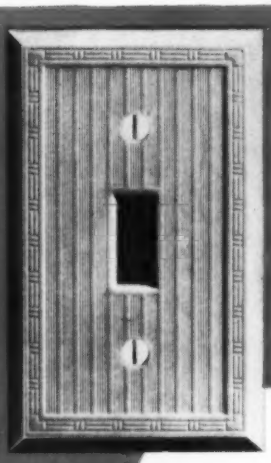
GDL Co

General DAY-LITE COMPANY

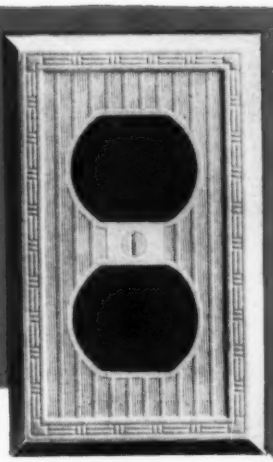
Manufacturers FLUORESCENT LIGHTING *Fixtures*

Phone: NORRISTOWN 7500 NORRISTOWN PA.

GDL Co



No. 102
One Gang Toggle Plate
Brown $52 per 1000
Ivory $60 per 1000



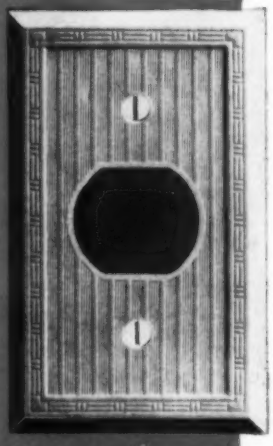
No. 104
Duplex Receptacle Plate
Brown $52 per 1000
Ivory $60 per 1000

IMMEDIATE SHIPMENTS

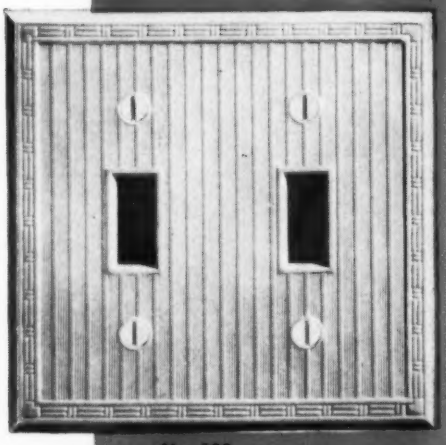
Unlimited Quantities

on Ivory, Brown, and Luminous

SWITCHPLATES



No. 106
Single Receptacle Plate
Brown $52 per 1000
Ivory $60 per 1000



No. 108
Two Gang Toggle Plate
Brown $104 per 1000
Ivory $120 per 1000

- **Orders shipped the same day they are received.**
- **Each plate packaged in an individual envelope complete with screws.**
- **Orders accepted at these prices until June 1, 1947.**

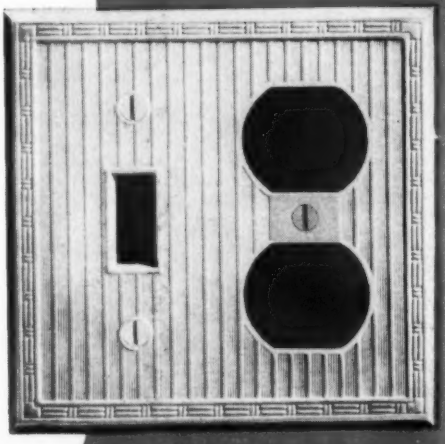
Samples sent upon request.

Terms: Less 2%, 10 days. F.O.B. Los Angeles

PLACE YOUR ORDER TODAY!

LUMINOUS SWITCHPLATES

Luminous switchplates (ivory colored) that glow in the dark are available now in all styles shown here. Numbers 102, 104, 106 $100.00 per thousand; Numbers 108 and 110 $200.00 per thousand.

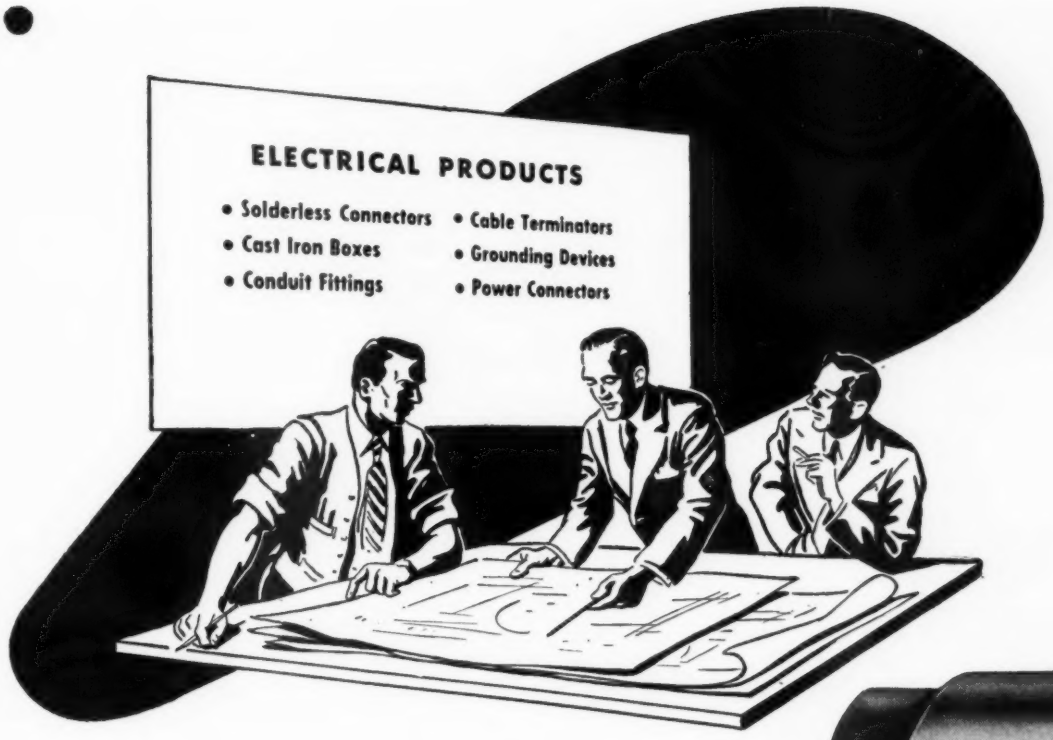


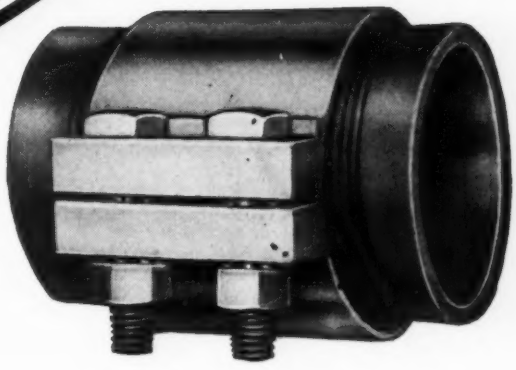
No. 110
Combination One Gang Toggle and Duplex Receptacle Plate
Brown $104 per 1000
Ivory $120 per 1000

ALL-PLASTIC MANUFACTURING CO.

501 N. Figueroa Street • Phone TRinity 0851 • Los Angeles 12, California

Address all correspondence to P.O. Box 2135, Terminal Annex, Los Angeles 54, California





SPLIT COUPLINGS... CONTRACTORS SAY THEY'RE O.K.

if they're O.Z.

CONTRACTORS reduce today's building costs TWO ways by specifying Split Couplings by O.Z.

ONE INITIAL PURCHASING COSTS ARE KEPT TO A MINIMUM. The simple one-piece malleable iron construction insures a low priced, high quality product.

TWO INSTALLATION COSTS ARE REDUCED. The Split Coupling is normally spread open so that it easily slips over the ends of the conduits to be joined. Then by merely tightening the nuts, the butted ends of the conduits are fastened together. Note particularly that the only operation required is turning the nuts—the heads of the screws are restrained from moving by the shoulder on the outside of the Coupling.

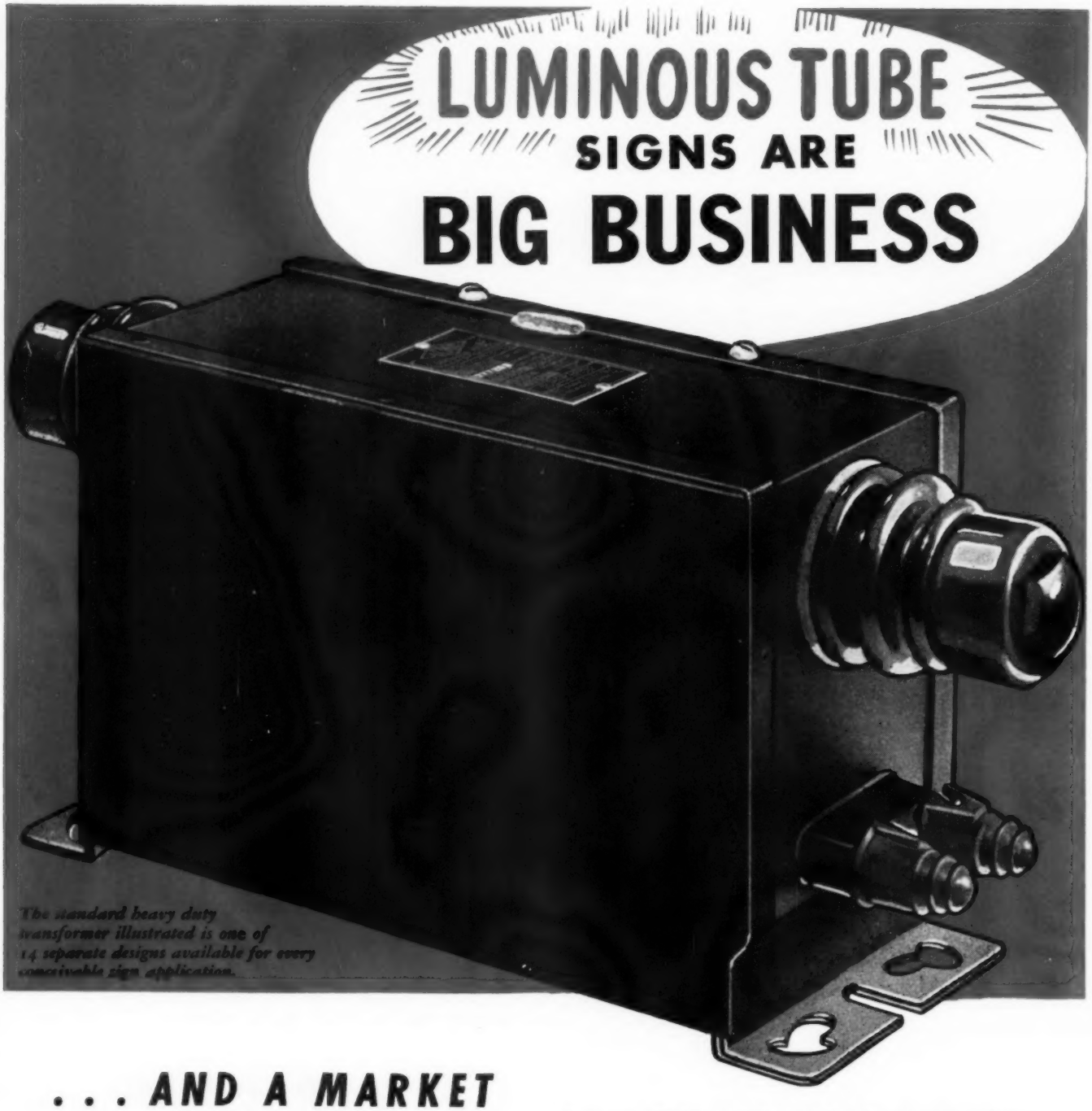
O.Z. ELECTRICAL MANUFACTURING COMPANY

262 BOND STREET · BROOKLYN, 2 N. Y.

For details on these and other electrical products in the complete O.Z. line, get in touch with your local O.Z. distributor. He's set up NOW to serve your requirements from stock.

280

LUMINOUS TUBE SIGNS ARE BIG BUSINESS



The standard heavy duty transformer illustrated is one of 14 separate designs available for every conceivable sign application.

. . . AND A MARKET FOR THOUSANDS OF TRANSFORMERS

Every so called "neon" sign needs at least one transformer and the big spectaculars are powered by hundreds of transformers. That's a big market which you can serve by supplying Acme Electric transformers. Acme Electric transformers have been powering signs since the early days when "neon" was a novelty. They've earned a reputation for performance and a preference in buying.

Now is the time to investigate the profit possibilities of selling Acme Electric luminous tube transformers.

ACME ELECTRIC CORPORATION
67 Water Street — Cuba, N. Y.

Acme ACME Electric
TRANSFORMERS

Acme Electric manufactures Luminous Tube Transformers—Fluorescent Lamp Ballasts — Cold Cathode Lighting Transformers and Ballasts — Mercury Vapor Lighting Transformers — Radio and Television Transformers — Electronic Transformers — Door Bell, Chime and Signalling Transformers — Safety Transformers — Voltage Regulating Transformers—Step Down Transformers—Control Transformers—Warp-stop Transformers — Capacitor Transformers for Power Factor Correction — Air Cooled Power Transformers — Rectifiers.

IN CANADA, ACME ELECTRIC (CANADA) LTD.
822 Notre Dame St. West — Montreal, Quebec

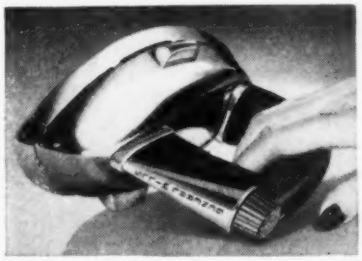
General Mills' Tru-Heat Control!

MOST ACCURATE KNOWN TYPE OF HEAT REGULATOR EVER USED IN AN IRON

Betty Crocker SAYS:

"Many modern washable fabrics are extremely sensitive to heat. To iron them safely irons must have more accurate temperature controls than ever before."

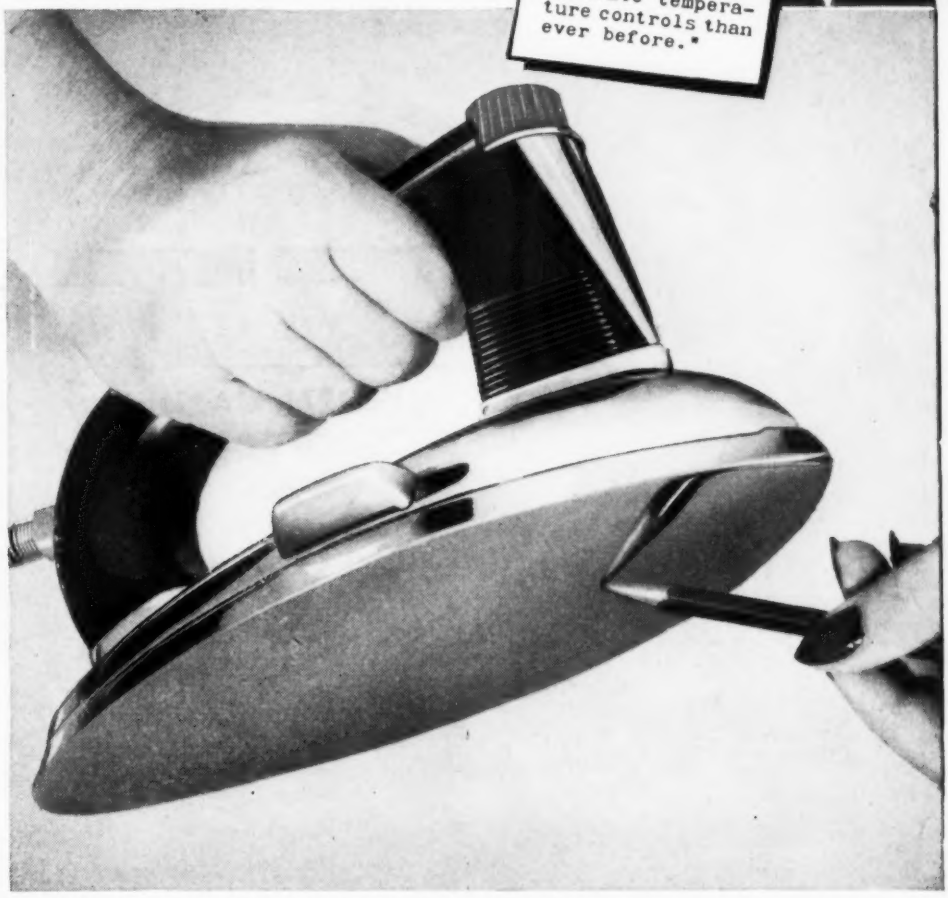
TRU-HEAT FABRIC SELECTOR. Iron every fabric at its own best temperature by setting the Tru-Heat Fabric Selector. Or iron by actual temperatures. Fabric Selector, marked both ways, follows recommendations of Good Housekeeping Institute.



SAFETY SIDE REST. Iron stays put on its low Safety Side Rest with little danger of tipping. What's more, it takes 15% less effort to roll it on its side than to lift an iron up onto a heel rest or stand. What a practical way to make ironing easier and safer!

4-WAY, FULL-VUE IRONING SURFACE covers more ironing at every stroke because it's 15.7% larger, 28% longer than the average of five other leading irons. New shape irons easily into difficult places with either end. Button Saver Edge slants *all around* so any part of it slips smoothly under buttons without loosening threads.

RIGHT WEIGHT. Accurately controlled heat does the job—not weight. Iron weighs only 3¾ lbs., the *right* weight for faster, easier ironing.



THE SURFACE THAT IRONS THE FABRIC is actually part of the General Mills Tru-Heat Control. This great new invention prevents dangerous overheating and time-wasting drops in temperature. It's the fastest-acting, most accurate known type of heat regulator used in automatic irons. Accurately controlled heat not only protects delicate fabrics but speeds ironing and makes every piece of ironing look smoother, more neatly finished. Tru-Heat Control is only one of the standout advantages of this new iron that's winning thousands of women in market after market. Homemakers are reading the whole story in hundreds of large newspaper ads . . . hearing it on General Mills' famous Radio Hour wherever distribution is under way . . . and they're showing their approval of it by buying the new General Mills Iron!

The iron sponsored by Betty Crocker

NOW BEING DISTRIBUTED IN:
Minnesota, Nebraska, the Dakotas, Wisconsin, Iowa, Michigan, Indiana, Ohio, the New England States, New York, Montana, Wyoming, Utah, Colorado, New Mexico, and parts of Idaho, Illinois, Kentucky, West Virginia, Pennsylvania and New Jersey.

GENERAL MILLS, INC., HOME APPLIANCE DEPT., MINNEAPOLIS 13, MINN.

Copyright 1947, General Mills, Inc.

Betty Crocker® is a trade name of General Mills.

No. V-4714

No. V-4924 ceiling type

No. V-612—Sunburst design, clear crystal glass with bright chromium

No. V-4914

No. V-4724 ceiling type

Four examples of French Crystal

AND ONE OF CLEAR GLASS *by Virden*

Rich with sparkling French crystal and gleaming chromium, these beautiful creations are an eloquent argument for fixtures by Virden. People have only to see them to want them. Because these units develop neither glare nor high surface brightness to offend or injure eyes, they represent both sound thinking and sound design. Prices attractive. See your Virden distributor.

John C. Virden Company • Cleveland, Ohio

Member American Home Lighting Institute

8 reasons why you should specify

WIRE AND CABLE INSULATION MADE FROM

GEON plastics

for manufacturing, domestic, industrial, and utilities wiring

Excellent electrical properties

Thin coating of insulation

More conductors in a given space

Resistance to ozone, wear, sunlight, water, chemicals, and most other normally destructive factors

14 colors including NEMA standards

Ease of handling

Easy stripping

Light weight

Geon
Polyvinyl Materials
A TRADE MARK OF B. F. GOODRICH CHEMICAL COMPANY

Be sure to specify wire or cable insulated with GEON in order to get *all* these advantages. Or, for information regarding special applications please write Department K-2, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.

B. F. Goodrich Chemical Company

A DIVISION OF THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • KRISTON thermosetting resins • GOOD-RITE brand chemicals

TRUMBULL (T) ELECTRIC

MULTIBREAKERS

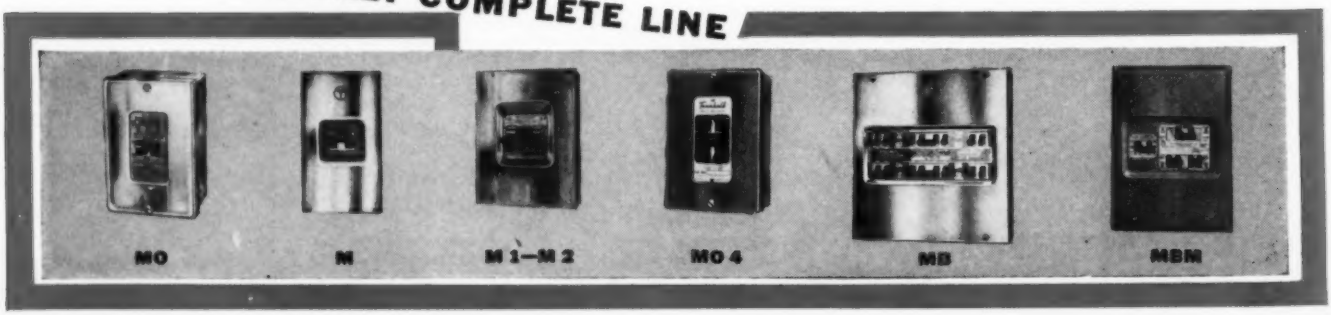
When you install a Trumbull Multibreaker you have assured Convenience, Economy and Reliability in modern circuit breaker protection for lighting circuits, small motors, appliances, water heaters, ranges and oil burners.

On overloads or short circuits, the Multibreaker automatically and instantly trips. On, Off and Tripped positions are indicated on the handle. To restore a tripped circuit merely move the handle from neutral position to Off . . . then to On. No fuses are needed. There's nothing to renew. No live parts are exposed even when restoring current.

Trumbull's complete line for residential use is shown below . . . and there's also a wide selection of industrial Multibreakers. See your Trumbull wholesaler for the capacities you need . . . make it Multibreaker for safe, durable protection . . . specify Trumbull for streamlined, compact design.

THE TRUMBULL ELECTRIC MANUFACTURING COMPANY
Plainville, Connecticut
Other factories at Norwood, O.—Seattle, San Francisco, Los Angeles

A REALLY COMPLETE LINE



Jenkins Bros. also make Diamond Seal Friction and Rubber Tapes which meet ASTM and Federal Specifications.

THE REAL TEST of tape comes in an emergency . . . like line repairs in a zero cold blast during an ice storm. That's the time Gold Seal's advantages show up most. You can trust it to strip right—stick tight—stand up . . . regardless of weather.

Gold Seal gets an okay everywhere for tighter, longer-lasting bond, for high dielectric strength, for ease in handling. And it doesn't dry out . . . nor does it peel, ravel, or smear the hands.

Play up Gold Seal Tape to your trade. Well advertised, backed by a famous name, it pays off in nice repeat business. Single rolls, boxed, and handy 10-roll can. Jenkins Bros. (Rubber Div.), 80 White Street, New York 13.

JENKINS Gold Seal Tapes

FRICTION and RUBBER TAPES

MADE BY JENKINS BROS. . . . MAKERS OF FAMOUS JENKINS VALVES

Light-to Order

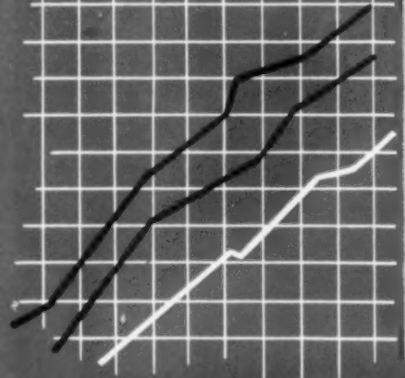
when you sell

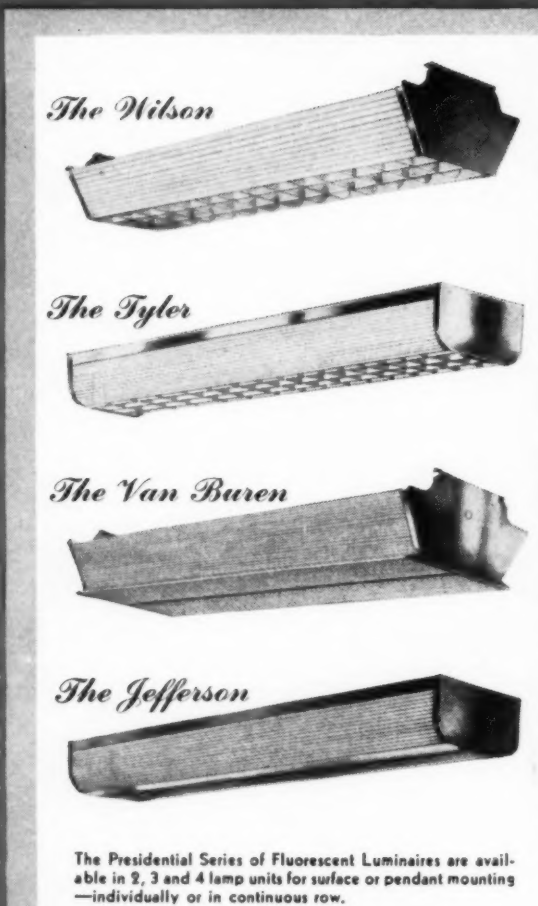
PITTSBURGH

PERMAFLECTOR

LIGHTING

EQUIPMENT





The Presidential Series of Fluorescent Luminaires are available in 2, 3 and 4 lamp units for surface or pendant mounting —individually or in continuous row.

★ Scientifically Engineered

★ Distinctively Styled

★ Economically Installed

★ Low Cost Maintenance

Pittsburgh Permaflector is the *complete line* of diversified and flexible lighting equipment which gives your customers functional, efficient and distinctive illuminating results. These facts make Pittsburgh Permaflector Equipment preferred in building and modernization programs:

1. The illuminating results and design effects obtainable with the exclusive use of Pittsburgh Permaflector Fluorescent and Incandescent Equipment are unlimited.
2. The full range of Pittsburgh Permaflector Equipment as to type, use and wattage assures your customer the "*right* light in the *right* place."
3. The Pittsburgh Permaflector line is a prestige line with wide acceptance among users and buyers of lighting equipment.

All of which means . . . when you handle the complete Pittsburgh Permaflector line, you sell equipment which gives your customers greater satisfaction and gives you added volume and added profits. Full information is yours for the asking.

Something Better has Come To Light

Pittsburgh Permaflector

PITTSBURGH REFLECTOR COMPANY · PITTSBURGH 22, PA.

Manufacturers of Fluorescent and Incandescent Lighting Equipment

DISTRIBUTED THROUGH BETTER ELECTRICAL WHOLESALERS EVERYWHERE

SEND FOR FREE
COMPLETE CATALOG
ON RACO PRODUCTS

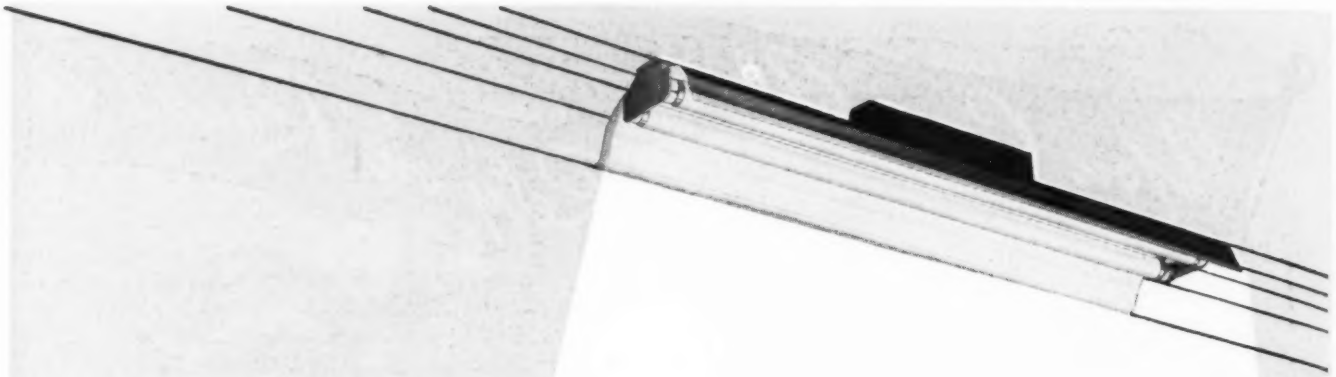
• Electrical wholesalers and salesmen the country over know they can always rely on Raco. They know it's the packaged line, the uniform line, the dependable line—that it's backed by 34 years' experience in the precision fabrication of steel products. Furthermore, Raco products are listed by Underwriter's Laboratories. Write today for information on this *profit* line of switch and outlet boxes. Remember, You Can Always Rely on Raco!

ALL-STEEL EQUIPMENT, INC.
300 Kensington Avenue, Aurora, Illinois

RACO
ALL-STEEL PRODUCTS

A Complete Line of Switch and Outlet Boxes

ALL-STEEL EQUIPMENT, INC.



THE FAMILY OF
FIXTURES THAT MEETS ALL
INDUSTRIAL LIGHTING NEEDS

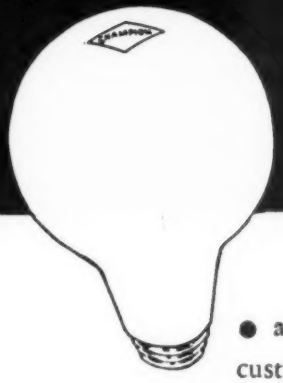
THE CHAN'L-RUN BASIC UNIT SYSTEM

HOLDENLINE CO.
Pioneers in Fluorescent
2301 SCRANTON RD., CLEVELAND 13, OHIO

HERE'S A SELLING

CHAMPION

FOR *You!*



● a sure and steady repeat item that has the quality to keep your customers coming back for "more of the same" - backed by an AAA1 manufacturing organization.

● an item that assures you all there is in it in the way of profit because of its clean-cut, direct-sale, low cost and low overhead distribution policy.

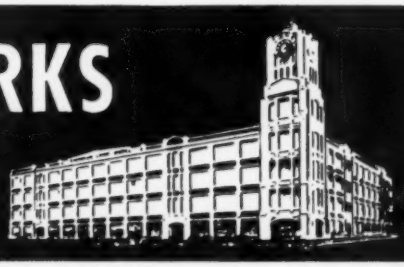
● an item that is easy to sell — no red tape, no contracts, no restrictions to hinder you from getting your full share of the business.

Better look into it

CHAMPION LAMP WORKS

Lynn, Massachusetts

A DIVISION OF CONSOLIDATED ELECTRIC LAMP CO.



AUSTIN REEL ROLLER

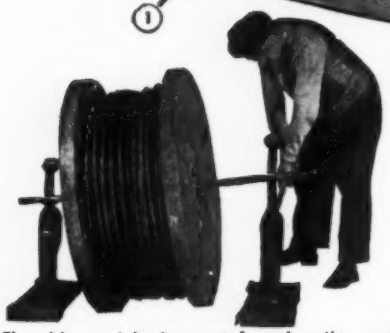
(Patent Pending)

NEW, SIMPLE, QUICK, SAFE METHOD

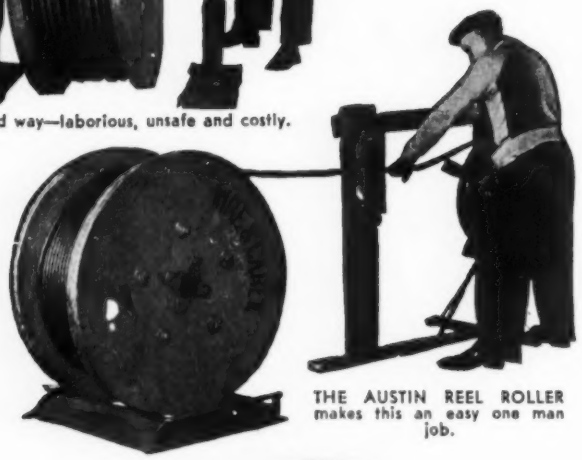
The AUSTIN Reel Roller dispenses any material that is wound on a reel and every Electrical Contractor, Utility, REA Co-operative, Shipyard, Railroad, and Wholesaler needs them. Mounted stationary or can be used on job as a portable device—ideal for pulling one or more cables into conduit and for service and repair trucks. A most economical investment . . . No. 600 REEL ROLLER at $37.50 each. *Prompt Shipment.*

The new quick, easy and safe way. Reel is loaded in a jiffy with little or no effort. Requires a minimum amount of valuable floor space.

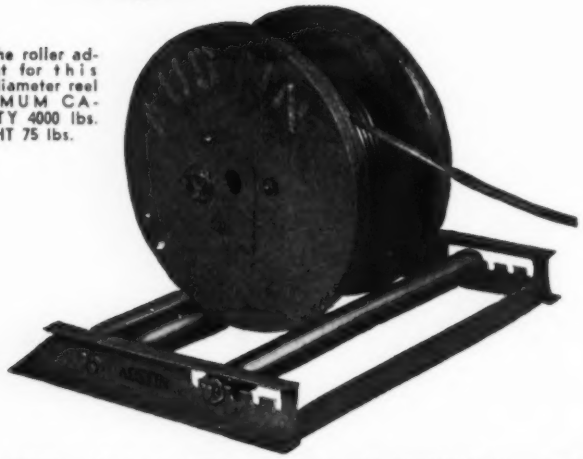
$37.50



The old way—laborious, unsafe and costly.



THE AUSTIN REEL ROLLER makes this an easy one man job.



Note the roller adjustment for this small diameter reel MAXIMUM CAPACITY 4000 lbs. WEIGHT 75 lbs.

POINTS THAT MAKE THE AUSTIN REEL ROLLER OUTSTANDING

(1) Ramp—Makes it quick and easy to load the reel onto the rollers.

(2) Back roller is mounted slightly higher, preventing the reel from being pulled off the roller when cable is removed.

(3) Reel rolls on grease packed flanged ball bearings with the greatest of ease and safety.

(4) Thumb screw, which when tightened, prevents roller from turning for easy removal of reel.

(5) Hole for lag screw, one in each corner for stationary mounting.

(6) Heavy steel frame, painted bright orange, not only adds to its appearance, but, also makes it readily visible on the floor which helps to eliminate accidents.

(7) Five adjustable slots to accommodate various reel diameters. No screws, washers or cotter pins to remove—simply raise up the roller and slide into the slot required.

(8) Will take any size reel up to 30" in width. For larger reels, use two reel rollers and mount end to end.

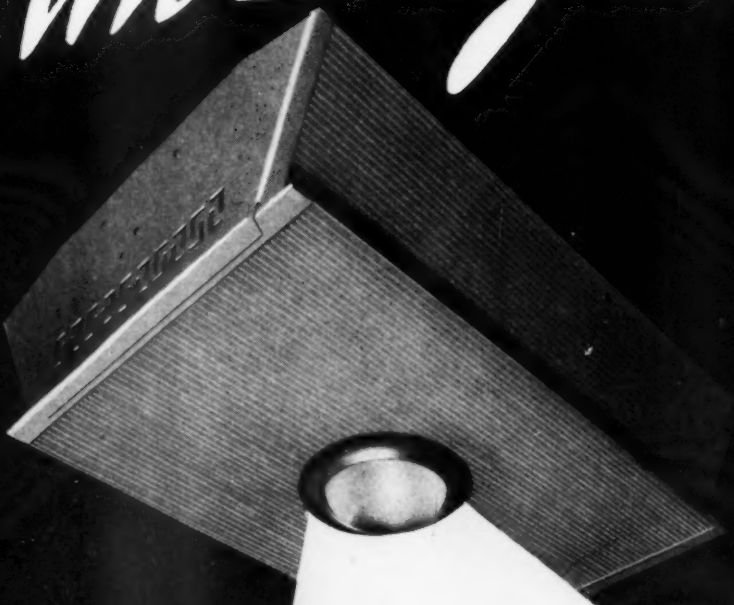
(9) Can be used in the warehouse or on the job.

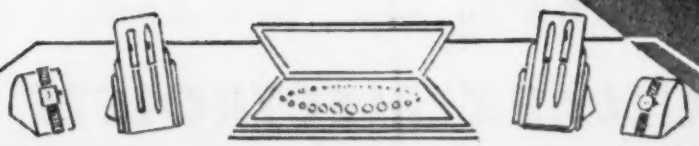
• **ALL AUSTIN Products are sold thru the Electrical Wholesaler exclusively . . .**

THE M. B. AUSTIN CO. 108-116 S. DESPLAINES STREET CHICAGO 6, ILLINOIS

It's the Bright Spot

THAT COUNTS





MERCHANDISE UNDER THE BEAM *With* All-bright RIGHT SPOT UNITS

ALL-BRIGHT—the duo-purpose, compact, space-utilizing, display light of tomorrow. One unit combines a soft-focus aura of light for background and an incandescent flood to spot and dramatize and increase sales. Before planning to build or remodel your office, factory or store display, see All-Bright—the fixture of the future!

SEND FOR ILLUSTRATED FOLDER

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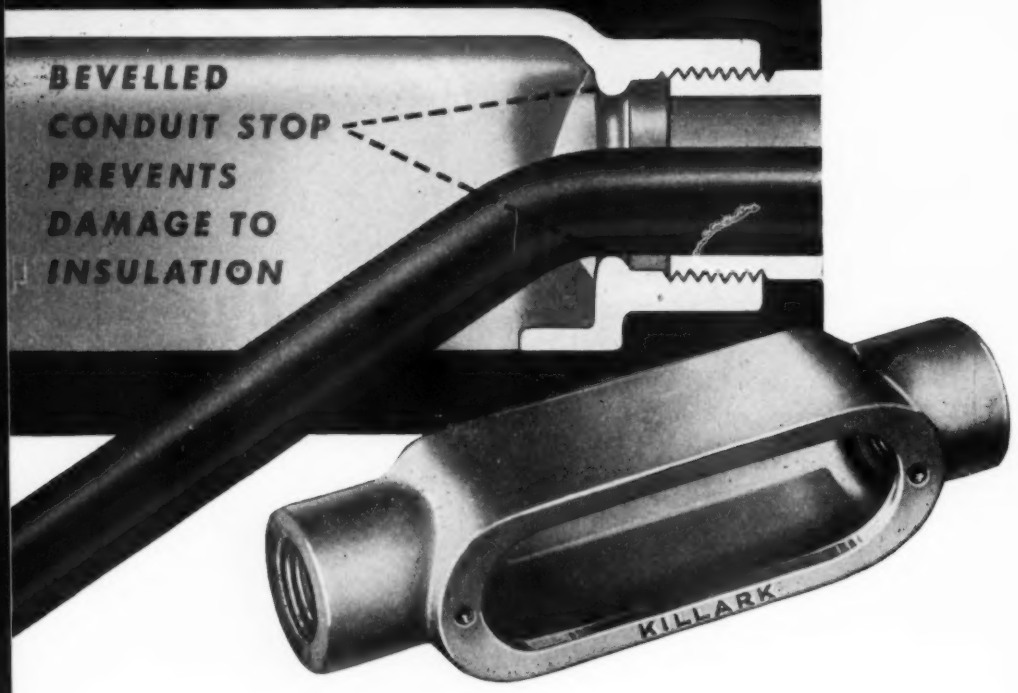
All-bright ELECTRIC PRODUCTS COMPANY

3917 - 25 N. KEDZIE AVENUE • CHICAGO 18, ILLINOIS

YOU'LL HAVE SAFE CONNECTIONS



AND YOU CAN HAVE ANY TYPE OF OUTLET

with KILLARK ELECTROLETS

There's smooth going and safety on the job with all Killark cast conduit bodies—no drag as you draw the wires and there's no danger of stripping insulation because there are no burrs or sharp edges. The bevelled conduit stop in the hub permits easy passage of wire and protects it from contact with conduit edge.

The exacting electrician appreciates the advantages of precision made cast fittings on the job. Oval and rectangular types for threaded and threadless conduit. For all standard receptacle and switch covers.

Do you have the entire Killark catalog of the complete Killark Line? If not, send for it.

KILLARK ST. LOUIS

Killark

ELECTRIC MANUFACTURING COMPANY

Offices and Warehouses: Atlanta, Baltimore, Boston, Chicago, Denver, Los Angeles, Pittsburgh, San Francisco, Seattle and Syracuse. Offices: Cincinnati, Cleveland, Dallas, Detroit, Kansas City, Minneapolis, New York, Philadelphia

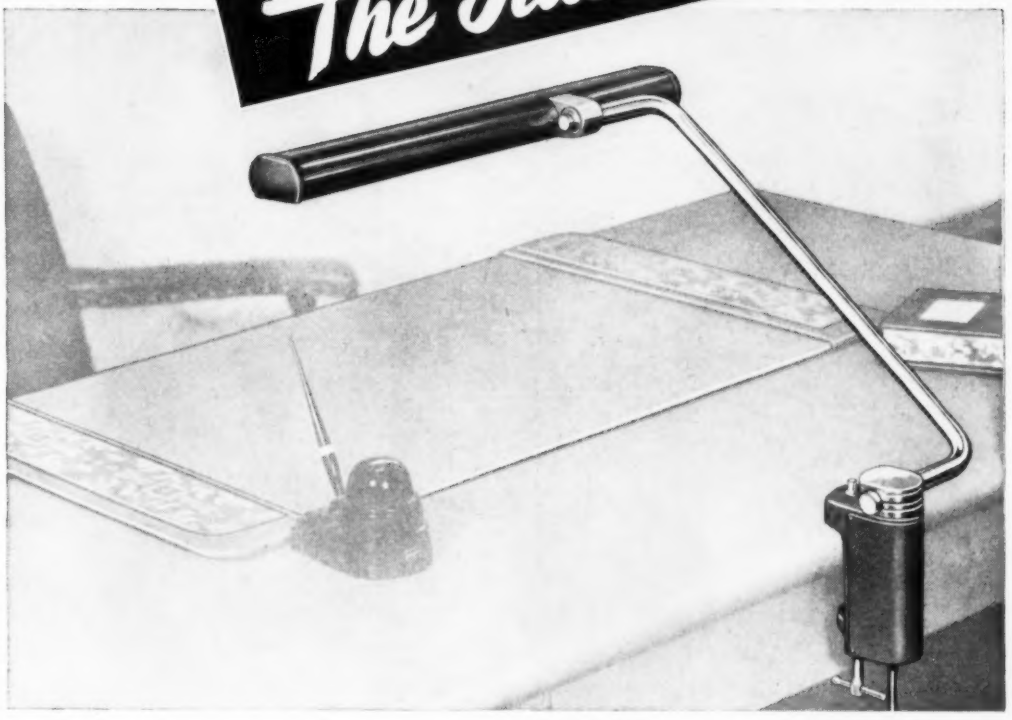
Vandeventer & Easton Ave.
SAINT LOUIS 13, MO.

Faries Scores Again!

with a

REVOLUTIONARY FLUORESCENT DESK LAMP

The Glider

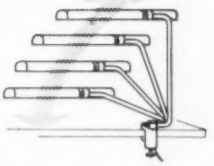


The beautiful, sturdy "air-flow" design shade and attractive, electroplated finish give the "Glider" an excellence that blends well with the most lavish office furnishings. Easily adjustable to any desired position by the mere touch of the hand. And . . . it *stays* in position until moved. Complete range of positions assures concentrated light without glare. Priced to please . . . sells on sight!

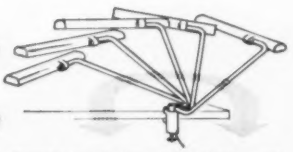
SPECIFICATIONS

Equipped for 1 T8, 15 watt 18" fluorescent bulb. (AC and DC).
SHADE: 19" x 3¾" x 1⅞".
Length from center of clamp to center of shade 18".
Clamp adjustable to 3⅛".
Completely adjustable—horizontally and vertically.
FINISH: Shade electroplated statuary bronze. Shade fitting, arm and top fitting of clamp, satin chrome.
Clamp—rippled bronze.
Wired with twin button switch in base of clamp, 10 feet of rubber covered cord, and unbreakable plug.

List Price **$13.50**



Complete Vertical Adjustment



Complete Horizontal Adjustment

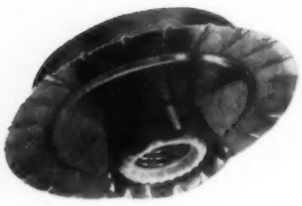
Faries Manufacturing Company, Decatur, Ill.
Pioneers in Lighting Equipment Since 1880

The Ceiling Is Off!

The new home owner wants better quality fixtures. Fill this growing demand now with these distinctive Colonial designs by

METALLIC ARTS
of New England, Inc.

LIGHTING FIXTURES

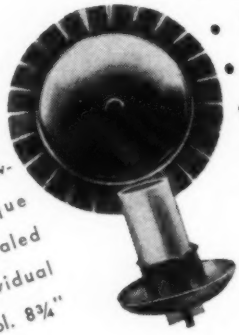


Model #539—John Alden
Beam Light for low studded ceilings. Pewter or antique brass. Concealed wiring for added beauty and safety. 5¾" diameter.

Model #518—Concord
Hobnail Beam Light for low studded ceilings. Pewter or antique brass. Concealed wiring. 5¾" diameter.

Model #318
Arlington
Hobnail Wall Sconce. Pewter or antique brass. Concealed wiring, individual light control. 8¾" high, 5¾" wide.

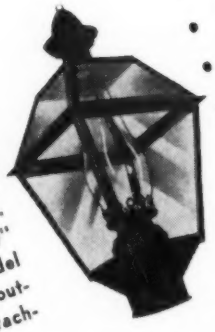
Model #339
Plymouth
Wall Sconce. Pewter or antique brass. Concealed wiring, individual light control. 8¾" high, 5¾" wide.



Model #303
Ipswich
Wall Sconce. Pewter or antique brass. Concealed wiring, individual light control. 10" high, 4" wide.

LUPLEX LIGHTING FIXTURES

Model #102-D—Modern
Counter Type Sign. Gold bronze on solid brass base. Decorative and highly visible. Concealed lighting, single or double face. Standard wordings in stock. 12½" long, 7¼" high. Also wall or ceiling type fixtures.



Model #1896
Boston Post Lantern
Antique style for outdoor use. Attachable to post. 18½" high, 9" wide. Also Model #1896-B for outdoor wall attachment.

Most Metallic Art fixtures are packaged 2 or 4 to a carton and 12 to the master carton, the jobber's way.

MANUFACTURED BY METALLIC ARTS OF NEW ENGLAND, INC. CAMBRIDGE, MASS.

Asquith ASSOCIATES
131 STATE STREET, BOSTON
Sales Representatives

More and more users, fixture makers, distributors and contractors know the value of "Certified ETL" on a fluorescent lamp starter. Because of Certified Starters, fluorescent tubes last longer, operate at top efficiency, pull maintenance costs *down.*

Certified Starters are made to rigid specifications by 10 leading manufacturers—tested, checked and Certified by independent Electrical Testing Laboratories, Inc., as fully complying with those specifications. It pays *always* to specify starters bearing the familiar and famous "Certified ETL".

Be sure they're CERTIFIED . . . look for this mark stamped on the case.

The Manufacturers of

Certified Starters

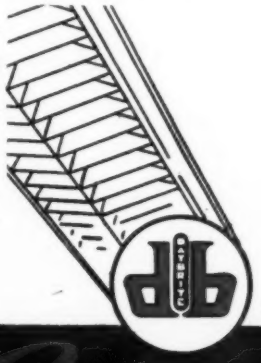
The Arrow-Hart and Hegeman Co., Hartford, Connecticut
The Bryant Electric Co., Bridgeport, Connecticut
Dura Electric Lamp Co., Newark, N. J.
General Electric Co., Bridgeport, Connecticut
Harvey Hubbell, Inc., Bridgeport, Connecticut
Instant Glow Starter Corporation, New York, N. Y.
Kuthe Laboratories, Inc., Newark 4, N. J.
The Lloyd Products Co., Providence, R. I.
Pass & Seymour Co., Syracuse, N. Y.
Sheldon Electric Co., Irvington, N. J.

VIZ-AID...

...so versatile!

Its chassis is equipped with a wide variety of installation aids: holes, slots, knockouts . . . so you can mount it anywhere and anyway.

Viz-Aid commercial fixtures... for two 40- or two 100-watt lamps. U. S. Patent Nos. D-138990, D-143641, others pending. Request Bulletin 10-B-1 for complete details.



Day-Brite Lighting, Inc., 5405 Bulwer Avenue, St. Louis 7, Mo.

Nationally distributed through leading electrical supply houses. *In Canada:* address all inquiries to Amalgamated Electric Corp., Ltd., Toronto 6, Ontario.

216

IT'S EASY TO SEE WHEN IT'S

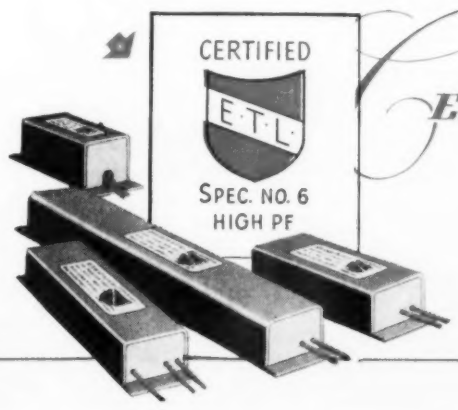
DAY-BRITE

Lighting

"There's an 'inside' story on fluorescent lighting you ought to know!"

The big story is . . . *inside the fluorescent lighting fixture!*

That's where you'll find the BALLAST—the heart of the tube and fixture performance and operation. And CERTIFIED BALLASTS built to rigid specifications—tested, checked and CERTIFIED by impartial experts, Electrical Testing Laboratories, Inc., as completely meeting those specifications—assure longer fluorescent lamp life, most light from lamps, greater economy. Be sure the Ballasts you specify and use bear the famous ETL Certified Label next to the maker's name.



CERTIFIED BALLAST MANUFACTURERS

Makers of Certified Ballasts for Fluorescent Lighting Fixtures

Acme Electric Corporation, Cuba, New York

Chicago Transformer Div., Essex Wire Corporation, 3501 Addison St., Chicago, Illinois

General Electric Co., Specialty Transformer Division, Fort Wayne, Ind.

Jefferson Electric Co., Bellwood, Illinois

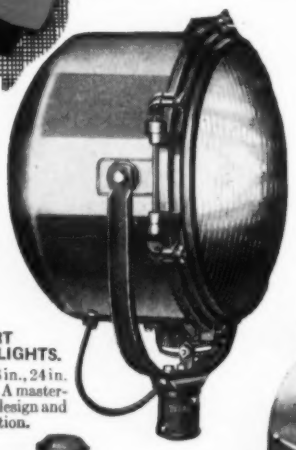
Sola Electric Co., 2525 Clybourn Avenue, Chicago 14, Illinois

Starring and Company, Bridgeport, Conn.

Wheeler Insulated Wire Co., 378 Washington Ave., Bridgeport, Conn.

"THE REVERE LINE of Lighting Equipment is a 'sweetheart' "—say live-wire salesmen everywhere. Eye-appeal is only ONE of the many features that distinguishes the line—there is QUALITY in design and craftsmanship that stands out like a beacon. Make Revere Catalog data part of your sales equipment. Show the exclusive features, the structural efficiency and adaptability. Your sales volume will zoom high when you concentrate on the diversified Revere Line of Open and Enclosed Floods, High and Low Mounting Floodlight Standards, Pit Lights, Airport Floods, Runway Markers, Searchlights and a host of other specifically engineered Revere lighting units for

SERVICE STATION—AIRPORT—INDUSTRIAL
MARINE and SPORTSLIGHTING

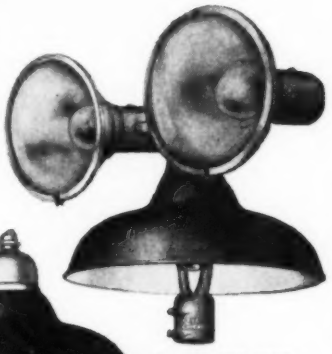


AIRPORT FLOODLIGHTS. 12 in., 18 in., 24 in. lens size. A masterpiece in design and construction.

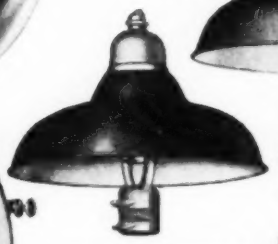
No. 3080. Open Type Flood for lighting large areas. Alzak Aluminum reflectors. 300 to 1000 Watt. Telescop c arm provides simple and positive adjustment.

No. 6500 SERIES 750 - 1000 Watt ventilated and weatherproof floodlight.

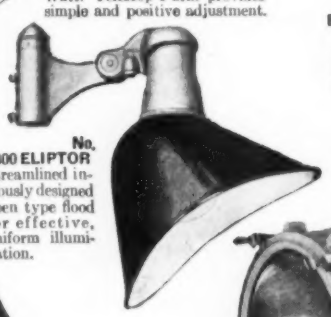
No. 4200 ENCLOSED FLOOD. 750 - 1000 - 1500 Watt. Rotation feature with degree markings makes this a practical, easy to service unit for sports lighting.



No. 3018 CONVERTIBLE. Weather - proof. Accommodates one, two or three top floods.

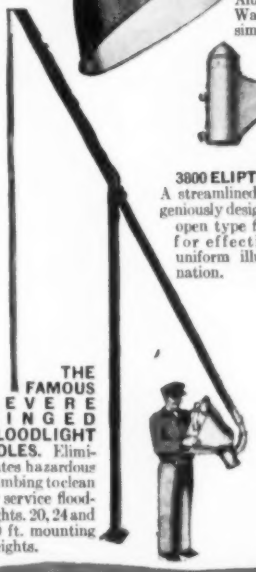


No. 3018 CONVERTIBLE. Does a fine area lighting job plus spot-lighting.

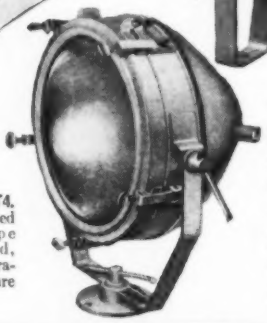


No. 3800 ELIPTOR A streamlined ingeniously designed open type flood for effective, uniform illumination.

ENCLOSED FLOODS. A unique line in 150 to 1000 Watt sizes for any type of mounting. Also portable models.



THE FAMOUS REVERE HINGED FLOODLIGHT POLES. Eliminates hazardous climbing to clean or service floodlights. 20, 24 and 30 ft. mounting heights.



9-S 5452-L-ALT4. 500 Watt enclosed (Navy) Type Flood. Rugged, concussion, vibration and exposure resistant.

We pay tribute to Thomas A. Edison, whose birthday we commemorate this month. His initiative has opened a world of opportunities to all of us. The spark of his genius is an inspiration to all workers in the field of electrical development.

REVERE ELECTRIC MFG. CO.

6011 BROADWAY • CHICAGO 40, ILLINOIS
INDOOR AND OUTDOOR LIGHTING EQUIPMENT TO SERVE EVERY NEED

★ ANSONIA ★

Ankoseal

will not support Combustion

Continuous unfailing service is a prime requirement for industrial control cables, telephone cables, radio control cables, television cables and power cables. Ankoseal offers special protection for these types of cable against the ravages of fire, because it will not support combustion.

Because it chars, but does not readily drip or run from the cable when placed in direct flame, it often affords dielectric protection to vital circuits until replacements can be made in case of flash fires from short circuits, spontaneous combustion, or from other causes.

Ankoseal has many other desirable qualities — including resistance to a variety of other destructive agents, unusual flexibility, long life and versatility.

THE ANSONIA ELECTRICAL DIVISION
ANSONIA, CONNECTICUT *of*
NOMA ELECTRIC CORPORATION

PHIL·MAR

HERE'S THE NEW LEADER IN WALL LAMPS

Phil-Mar Presents

The Most Profitable Line of Wall Lamps in America, Backed up by the most complete Lamp Merchandising Program ever offered to dealers . . .

They're the kind of wall lamps you'll want to sell—Because they are the kind of wall lamps America wants to buy—Here's Why!

1 ORIGINAL!
They set a new high standard in Originality—Styling—Quality. This story told in attractive booklet tagged to each lamp.

2 COLORS THAT PLEASE AND SELL!
Each original is a symphony of color created by Phil-Mar stylist for color conscious America—Each lamp has a tastefully matching shade of Parchment, Nylon or Phil-Mar's amazing new Glastron* —a Fiberglas** fabric processed by an exclusive Phil-Mar method.

3 EXCLUSIVE CONSTRUCTION!
No other line offers Phil-Mar's exclusive customer pleasing, cast aluminum construction. Plaque and arm have no bolts or fittings to loosen or weaken. Equipped with *Indirect* reflector bowl.

4 INDIVIDUALLY PACKAGED!
Each lamp has its own unique double-purpose carton which becomes an attractive eye catching display—or convenient, easy-to-handle carry home package.

5 POPULAR PRICE!
They retail from $3.50 to $9.00 and there's a distinctive *new* style for every room in the house.

Everbearing Strawberry No. 118R: One of the many original wall lamps designed by Phil-Mar stylist. A true to life reproduction of a luscious strawberry plant, hand tinted in natural colors of red and green. 10 inch parchment shade is gaily decorated with matching design of strawberries.

We have a very attractive and profitable distributor plan — Write or wire us for details, also catalog and price list.

PHIL·MAR ORIGINALS
The Styled Line

*Trademark
**T. M. Reg. U. S. Pat. Off. by Owens-Corning Fiberglas Corp.

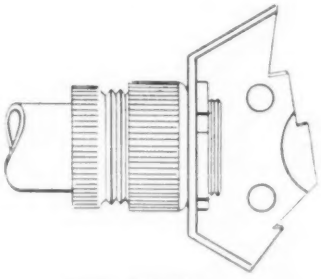
PHIL-MAR ELECTRIC, INC. • Chester Avenue at East 22nd Street, Cleveland 14, Ohio

Leading the Parade

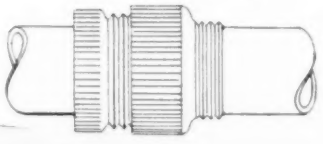
OF PRECISION CONDUIT PIPE PRODUCTS

THE NEW COMBINATION CONDUIT THINWALL COUPLING-CONNECTOR

Used with the nut it becomes a box or receptacle connector as illustrated.



Used without the nut it is a Slip Type Coupling for fast assembly of thinwall conduit.



This single fitting performs equally well as a receptacle connector or as a Slip Type Coupling. It is all steel, precision machined and threaded, and Cadmium plated throughout. Place your order now to assure adequate stock of this revolutionary new product.

INITIAL SIZE AVAILABLE, ½"

REPRESENTATIVES IN PRINCIPAL CITIES

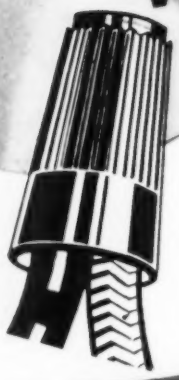
Conduit

PIPE PRODUCTS CO.

COLUMBUS, OHIO

PIPE COUPLINGS PIPE NIPPLES ELBOWS, 90° AND 45°
RUNNING THREAD PIPE GOOSENECKS WALLPLATES

NOW CASH IN ON THE VAST READY-MADE MARKET FOR IDEAL Wire-Nuts*



(THE FULLY-APPROVED SOLDERLESS, TAPELESS WIRE CONNECTORS)

Wire-Nuts SPEED WORK AND SAVE DOLLARS— MAKE BETTER CONNECTIONS

STRIP WIRE → SCREW ON → That's All!

No messy solder . . . no tape—just two simple operations to make a better connection of all usual combinations of wires with an IDEAL Wire-Nut. Made in sizes for joining such combinations as two No. 18 or three No. 10 wires. Ideal Wire-Nut Connectors are listed by Underwriters Laboratories, Inc.

UNLIMITED MARKETS MEAN EVER-GROWING SALES

You can sell Wire-Nuts anywhere wire connections must be made. Think of the many hundreds of possible users in your territory:

- ★ **Electrical Contractors**
- ★ **Plant Electricians**
- ★ **Electrical Equipment and Machinery Manufacturers**

Many Millions of Wire-Nuts are in use today; millions more will be used in the days ahead. Prepare now to get your share of this business and . . .

INCREASED PRODUCTION plus BIGGEST ADVERTISING PROGRAM ASSURES VOLUME SALES FOR YOU

Alert electrical wholesalers will profit greatly from a new sales program now under way for Ideal Wire-Nut Connectors. Complete in every detail, this intensive program will help wholesalers make *"right now"* customers out of hundreds of prospects who have been waiting for these modern wire connectors.

NEW, POWER-PACKED PROMOTION

Through increased promotion—which includes dominating magazine advertising and publicity, aggressive direct mail, extensive sampling and field sales aid—contractors, maintenance men and manufacturers in every field will be told to "See your Electrical Wholesaler" for these dollar-saving Wire-Nut Connectors.

NOW, IMMEDIATE DELIVERY!

To back up this vigorous advertising, Wire-Nut production has been greatly increased! You'll be able to get stock at once and make immediate delivery to cash-in quick on your sales efforts.

COMPLETE YOUR CIRCUIT TO BIGGER PROFITS

Get all the facts now on Wire-Nuts and their sales and profit potentials for you. Write us today and . . .

MAKE THIS IDEAL CONNECTION NOW!

IDEAL

*Trade Mark Reg. U. S. Pat. Off.

Distributed Through AMERICA'S LEADING WHOLESALERS

IDEAL INDUSTRIES, Inc.

1047 PARK AVENUE *Successor to Ideal Commutator Dresser Co.* SYCAMORE, ILLINOIS

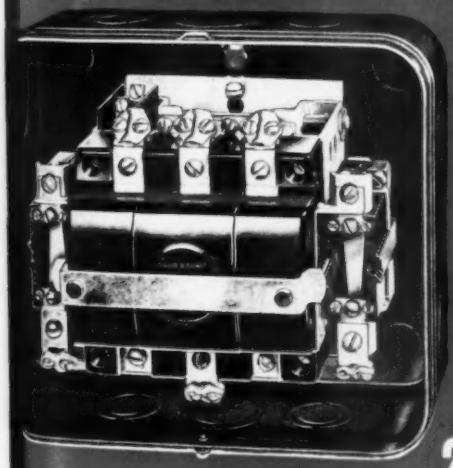
RIGHT ANGLE TYPE "RA"

ARROW AH HART

NEW No.2 MAGNETIC STARTER

NEW PRINCIPLE • BALANCED MECHANISM

1



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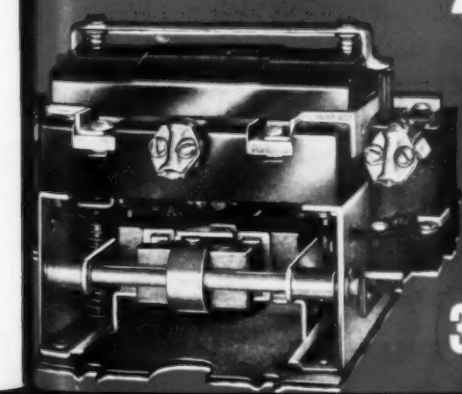


3

(1) *Small, compact* Here's the smallest Size 2 Starter ever developed — and having the biggest contacts. Dimensions with Enclosure: 9⅛" width; 8⅛" height; 5" depth.

(2) *Easy-to-wire* Designed for straight-through wiring. Line wires connected at one end and load wires at opposite end. Compact mechanism leaves more wiring room in box.

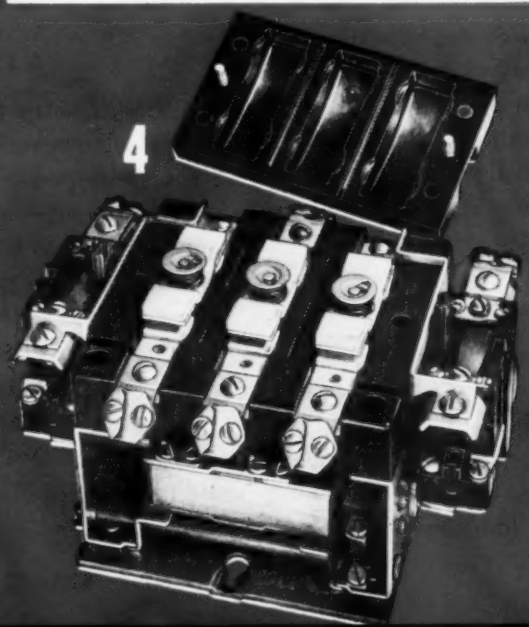
(3) *Fast hook-ups* Terminals front-wired; easy to get at. Connecting wires can be cut even. Straight-through wiring eliminates bending or forming heavy lines.

(4) *Arc control* Shape of contacts, and broad line of contacting area cuts the arcing to a new minimum. An individual arc chamber completely encloses each contact.

This switch makes use of a new, *original* development in solenoid starter mechanism, — not merely an improvement but a basic new operating *principle*. The Right-Angle BALANCED mechanism multiplies the 15-pound magnet pull to 25 pounds at the contacts, requiring but 8.5 Watts closed and 75 Watts inrush. Only the magnet plunger of 7 ozs. weight, works against gravity when the magnet is closing. The Right-Angle moving mechanism is *balanced* to provide full use of magnet power without lifting extra weight. Contact carrier is guided in perfect alignment in straight-line horizontal action, bringing equal contact pressure to each pole. This new-type action is engineered to produce a switch about *half the size* of the conventional motor starter... Write for illustrated 4-page folder giving out the full particulars of the features you'll want in your Starters from now on!

INDUSTRIAL CONTROL DIVISION

ARROW-HART & HEGEMAN ELECTRIC CO., HARTFORD 6, CONN.



4

Contacts

Illustration below shows design of long-life contacts. Curved movable tips against flat stationary tips give a broad line-of-contact surface which improves with use.

TYPE "RA"

INDUSTRY-WIDE BARGAINING...

Death Trap for Business, Suicide for Free Labor

IF CONGRESS is to succeed in its present efforts to prevent strikes in key industries from devastating the nation, it will have to put a crimp in industry-wide collective bargaining. This kind of bargaining is designed to apply agreements between employers and organized workers on wages and working conditions to an entire industry.

Further, if extension of this type of bargaining is not curbed, there is reason to believe that it will undermine the freedom of both American business enterprise and American wage earners. For, while increasing the destructive power of labor disputes, the general spread of industry-wide bargaining would so concentrate the fixing of wages—by far the largest element in the cost of production—that government regulation would be a next short step. With that step taken, freedom for business enterprise and freedom for labor would be well on the way out.

Unfortunately, industry-wide bargaining is commonly regarded as presenting a general conflict between organized labor and employers, with unions favoring it and employers opposed to it. This mistaken notion raises the heat of much of the discussion without increasing the light. The fact is there is no such general conflict. Employers and organized workers are on both sides of the argument about industry-wide collective bargaining. For example, while some union leaders are characterizing as labor baiters all those who raise the slightest question as to the desirability of industry-wide bargaining, organized workers in the air transport industry are strenuously opposing that type of bargaining; and the employers are advocating it.

Some Employers Like It

The reason there is in fact no clear cut issue between employers and unions over industry-wide bargaining is readily understandable. It presents certain advantages to both sides in the bargaining process. For example, union advocates of such bargaining generally stress the fact that industry-wide agreement on wages protects wage standards from being undercut by lower wage areas and lower wage employers. By much the same token, however, employers who like it often emphasize the fact that industry-wide bargaining may save certain well-managed and prosperous companies from being singled out for particularly heavy wage exactions. This general point has been underlined in both the full-fashioned hosiery industry and the West Coast paper and pulp industry. There, local unions, affiliated with international unions, have protested that industry-wide collective bargaining prevents them from getting from especially prosperous employers wages as high as they could get if allowed to go it alone in collective bargaining.

So long as employers remain subject to the federal antitrust laws while unions are exempted, the balance of power in industry-wide bargaining would seem to be heavily weighted on the side of the unions. If, for example, employers were to announce an intention to match an industry-wide wage increase by an industry-wide price increase, there is no doubt that they would promptly be indicted for violation of the federal antitrust laws. Even so, the fact remains that some employers favor industry-wide bargaining while some segments of organized labor are against it.

A Clear Cut Public Issue

The industry-wide bargaining issue as it affects the public, however, is clear cut. It is concentration of economic power (in the hands of both unions and management) which can make industrial conflict devastating to the public welfare. At least five times within about a year—in steel, on the railroads, in the maritime industry and twice in the soft coal industry—strikes prompted by union efforts to impose industry-wide agreement about wages and working conditions have paralyzed large parts of the nation's economic life.

In soft coal about 90% of the production workers are members of the United Mine Workers. In steel

about 80% of the production workers are members of the United Steelworkers, C. I. O. In some other key industries there is a comparable degree of concentration of union control. In the face of such concentration many employers see no alternative but to get together on their side for industry-wide bargaining. But when they do so in key industries, the odds are lengthened that failure to agree on wages and related matters, will result in generally ruinous conflict. If agreement is reached, the chances are increased that it will take too little account of the welfare of the consuming public.

It is possible to have industry-wide bargaining on many subjects other than wages. *But the main interest is wages; and the main drive is toward industry-wide and ultimately nation-wide uniformity. Such uniformity is the deadly enemy of industrial decentralization and the pioneering expansion of industry in new areas.* Why pioneer, with inexperienced workers, if the wage rate must be uniform for the whole industry? Moreover, it would also be hard to conceive of a more effective way to put a blight on local efforts to improve industrial relations than to make wage rates and other working conditions uniform throughout the industry and then the nation. *However, among many other dangers, the overshadowing danger in industry-wide bargaining lies in its concentration of economic power.*

Wages Monopolized

On the average, the cost of labor accounts for about two-thirds of the total cost of all industrial products. The universal spread of industry-wide bargaining would thus concentrate in relatively few hands control of the greater part of the cost of industrial production. There is no reason to believe that even without disastrous strikes, such concentration would long continue free from government regulation. That would turn more earth for the graves of American business enterprise and American working men's freedom.

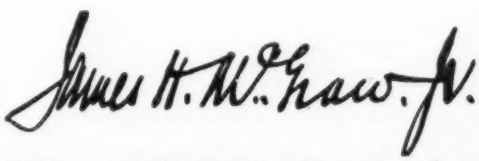
Those who believe that industry-wide bargaining serves the public well—and many sincere people do—stress the fact that, on the whole, it has worked in the industries where it has been tried over a considerable period. Most of the industries of which this is true, however, are not key industries. The pottery industry, the glassware industry, and the silk and rayon dyeing industry—to cite a few in which industry-wide bargaining has been practiced with considerable success—are important industries. But they are not industries in which strikes would have a ruinous impact on the nation. In contrast, a strike in the soft coal industry as the result of a breakdown of industry-wide negotiations quickly becomes a national disaster. The dangers inherent in industry-wide bargaining are multiplied accordingly.

England No Guide

Those who think extension of industry-wide bargaining would be good for the public often emphasize the fact that it has worked smoothly in England, where it has been extensively practiced. *Not the least of the things it has smoothed in England, however, is the transfer from private enterprise to state socialism of industries in which industry-wide bargaining by monopolistic unions and employer groups had so badly undercut competition that private enterprise had lost much of its justification.* A general extension of industry-wide bargaining could be expected to have the same consequences in this country.

The best way to curb industry-wide bargaining is a question which lies beyond this discussion. *Much would be accomplished if the federal government would discontinue its active promotion of industry-wide adjustments, in the fields of both labor and management, at which it has been busy ever since N. R. A. days. Still more would be accomplished if the federal antitrust laws were applied with even-handed justice both to unions and employers—a course urged in the 53rd editorial in this series.* Perhaps a definite limitation of the scope of labor agreements would also be necessary.

The effects of industry-wide bargaining in increasing the extent of public regulation of industry will vary. They will, of course, be less pronounced in railroads and other public utilities, which are already extensively regulated, than they will be elsewhere. For unregulated industries, however, industry-wide bargaining carries the threat of extensive regulation and, along the way, of industrial conflict devastating to the public. In these excited times, to say what I have said here is to invite characterization by overheated partizans as a foe of legitimate union progress. That is perhaps not so bad, however, as to qualify as a pall bearer for both American business enterprise and some of the basic freedoms of American working men. That may well be the fate of those who blindly accept the expansion of industry-wide collective bargaining as being "in tune with the times."



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EXTRA PROFITS FOR YOU WITH . . . America's Favorite

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HUSKY

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HERE are the feature-packed freezers made by the 79-year old J. E. Porter Corporation . . . They're America's first choice for eye-appeal, for performance, and for popular price . . . Yes, extra profits are yours when you add the money-making Porter line.

Heavy current demand for our products prevents us from assuring immediate delivery of all types of Porter freezers. Meanwhile, we'll be glad to send specifications and prices on the complete line, with a promise to fill your orders as fast as conditions permit.

79 YEARS OLD

THE J. E. **PORTER** CORPORATION
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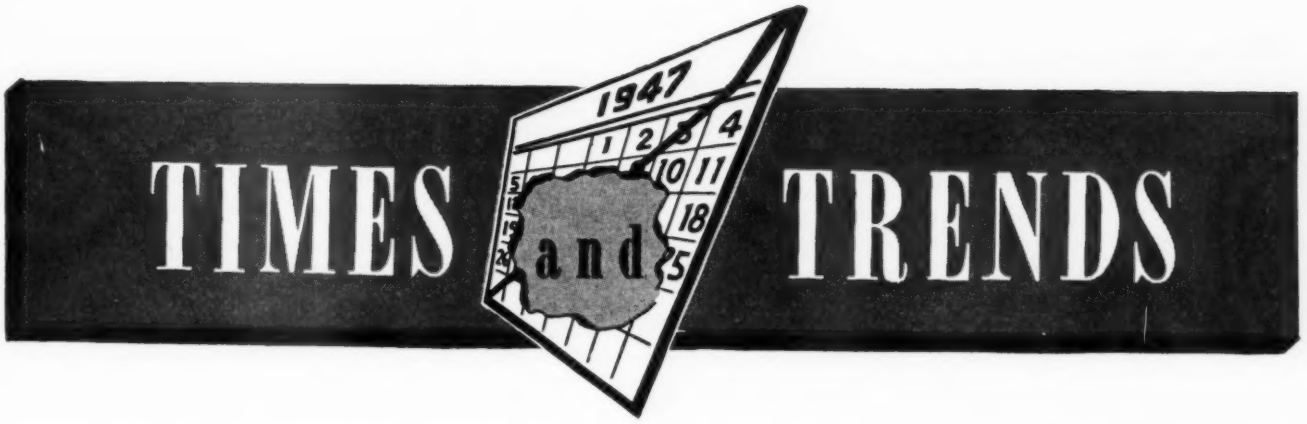
MANUFACTURERS OF AMERICA'S FAVORITE ICE CREAM FREEZERS



The Edison Centennial The first time this writer caught up with the name Edison was during his early years at school, when he was still wearing short knee pants. We were studying American history and the author had included a chapter on Thomas A. Edison as one of the outstanding Americans of modern times. During that study the incandescent electric lamp in the classroom was pointed to as one of his important inventions and the phonograph — a cylinder machine with a great big horn — was actually demonstrated for the edification of the students.

Even then the story of Edison gave us a great thrill and added to our desire to "see America." But to our boyish way of thinking a man who had gained enough prominence to have a whole chapter devoted to his life and accomplishments in the history book of another nation with a different language certainly would have to be either dead already or at least pretty old. Certainly we did not even dream that some years later we would not only have the privilege of shaking hands with that great man, but to have the wonderful experience of actually visiting with him in his library at the West Orange, N. J. plant on several occasions.

Initially it was our business of being an electrical wholesaler that opened the doors to Mr. Edison, and his frequent desire to find out about specific electrical products, kept them open. Those visits to the now famous, couch-equipped library are among our treasured recollections and, needless to say, the admiration for the great man, born in our youth many thousands of miles away, grew boundlessly in those closer contacts.

The Edison Centennial Section in this issue is presented to our readers as an appropriate tribute to a great man and as a reminder of the fact that his inventions provided not merely the foundation but much of the framework of the electrical industry as we know it today, and of which the electrical wholesaling business is an important branch.

It would be futile to attempt within the confines of a few pages a recital or even dramatization of all those many of Mr. Edison's inventions that through the passing years emerged as milestones of progress.

Nevertheless the few high spots of Edison's record of 1,097 patented inventions which we present in the following pages should suffice to demonstrate that he stands unique, at once as the world's greatest inventive genius and as one of the greatest benefactors of mankind of all times. The famed Leonardo Da Vinci of the fifteenth century was credited with having had many advanced ideas that were made practical by others only centuries later. Mr. Edison not merely turned many of his own ideas into workable and usable products but lived long enough to see huge industries with hundreds of thousands of workers develop as the result of his labor.

Yet, with his remarkable record of contributions particularly to the advancement of the electrical industry, Edison obviously considered himself and his contemporaries just pioneers of a new, the electrical age, for he wrote: *The mind cannot conceive what man will do in the Twentieth Century with his chained lightning.*

Man has done much with his chained lightning since Mr. Edison's eyes closed in eternal sleep. The end of what man will do with it is not in sight. Yet, as long as the world stands Thomas A. Edison will be remembered as the one who opened the gates to the wonders and blessings that chained lightning brings to mankind in ever-growing measure.

The tribute to Mr. Edison presented here on the occasion of the 100th anniversary of his birth, is but a feeble expression of the pride that every man and woman in the electrical industry may well feel in being associated with the industry that is so particularly a child of his accomplishments.

May it serve as an inspiration to all who read it.

★

Credits Early in 1946 our editorial projects' tickler reminded us that February 11th, 1947 would mark the 100th Anniversary of the birth of Thomas A. Edison, which meant that some special editorial material on that event should be featured in the February 1947 issue.

Since an editor must always plan ahead — often far, far ahead — we started then to accumulate appropriate material and data from various sources. Of the many photographs obtained of Edison or of scenes in his eventful life, it was taken as a foregone conclusion that one

He gets the FATTEST envelope

Because adequate wiring is basic ... and affects everyone in our industry ... Anaconda continues to promote this idea in a wide list of national magazines.

YOUR PAYMASTER never sees him . . . he never signs the payroll . . . but Inadequate Wiring, the industrial jinx, draws big money.

Week in and week out, overtaxed, overextended, obsolete wiring can tax plant efficiency 25 to 50 percent without detection until a major tie-up occurs.*

To remove this costly imposter from your payroll, call in your plant power engineer, your consulting engineer, electrical contractor or utility power salesman. These men can find his finger prints anywhere in the plant. 47455

*WIRE AHEAD, a new booklet discussing preventive maintenance . . . the symptoms of inadequate wiring . . . and presenting plans for anticipating electrical demand, is now in preparation. We shall be glad to send it on request as soon as it is available.

ANACONDA from mine to consumer

ANACONDA WIRE AND CABLE COMPANY

of them would be selected for the cover of the Edison Centennial issue.

Then, a few weeks ago the mail brought the large wall calendar, issued annually by General Electric Company and the editor started to leaf over the monthly sheets to look at the illustrations — an old habit that dates back to the days when Maxfield Parrish painted some GE calendar pictures.

This year we did not get further than the February sheet. That stopped us dead, for there, reproduced in four colors, was a painting by Dean Cornwell, showing the historical scene of Thomas A. Edison in his Menlo Park laboratories, surrounded by his admiring staff, as he lighted the first incandescent electric lamp.

Instantly came the realization that here was the most ideal cover picture for our Edison Centennial issue, not only because the incandescent lamp must be considered Edison's greatest single invention but particularly because for many decades none other than the electrical wholesalers — our readers — were the vehicle of wholesale distribution for incandescent lamps.

We express hereby our appreciation to General Electric Company, not only for permission to carry this most beautiful and appropriate picture on the cover of this issue, but also for the excellent cooperation we received from its advertising department in providing us on extremely short notice, with the necessary engravings.

We extend sincere thanks also to the Thomas Alva Edison Foundation for the cooperation so liberally given in supplying valuable details and factual data as well as historical pictures, and a hearty thank you goes to Bussmann Manufacturing Co., Consolidated Edison Co. of N. Y., General Electric Co., Philadelphia Electric Co. and Westinghouse Electric Corporation, for certain photographs used in the Edison Centennial Section.

★

Wiring Devices From the Civilian Production Administration comes the report that production of critical wiring devices during January 1947 was expected to break all previous production records.

Monthly records to be topped were: 3.9 million toggle switches; 12.1 million screw base lamp holders, sockets and lamp receptacles; 10.5 million outlet, switch and receptacle boxes; 4.4 million convenience outlets; 7.1 million BX and Romex type box connectors.

Modestly the Electrical Products Branch of CPA says: "Freer flow of materials and components, coupled with allocations and priorities assistance for various materials, components and equipment given by CPA to the industry, is the basis for the prediction of unprecedented production."

It's safe to guess that every last wholesaler and his men are willing to say:—in the words of Omar—slightly altered: "We'll take the wiring devices — and let the credit go."

★

Crystal Gazing The National Industrial Conference Board reports that at its recent Economic Forum a panel of distinguished economists expressed the unanimous belief that: cost of living will decline in the second half of 1947, industrial production should rise above the 1946 level; retail sales during first half of 1947 are expected to rise above 1946 levels, drop below them in the second half.

Wholesale prices are generally expected to stand at about 120 in the last six months of 1947 compared to 119 average for first 11 months of 1946. One forecaster expects the price index to reach 145 while two others think it will slide to below 110.

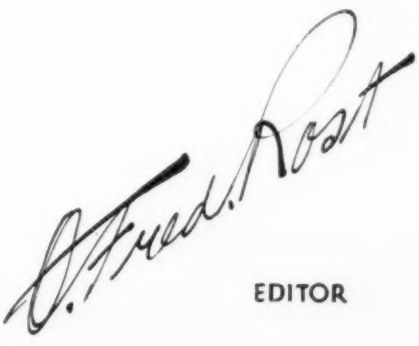
To a sound operator the signs on the economic horizon quoted above spell "Stop-Look-Listen."

The time for speculating on a continuation of rising prices is passing fast. The terrific *scramble for goods* — at any price — will melt as fast as supply catches up with demand and will be followed by a *scramble for orders* — at any price —, at least "at any price" by some of the manufacturers who capitalized on the scarcities to make a killing.

This is a good time to reinforce the fences of good relationships with those manufacturers who have served you under trying conditions, to the best of their abilities, through thick and thin. Watch inventories closely and get them in balance with your needs. Keep a double check on the speed with which orders on manufacturers are filled and adjust your frequency of ordering accordingly.

Wholesalers are supposed to make a good share of their small NET profit on fast turnover, not on speculating. Some of the best speculators of the post-World-War I era kicked the bucket.

Take it or leave it.



EDITOR

HIDDEN BEHIND THE FACE of your watch are over 150 precision parts—the "works" that make a watch a useful and dependable mechanism. In FEDERAL NOARK electric products, as in the construction of a fine time-piece, *precision* is a built-in characteristic . . . precision that makes for dependable performance under the most gruelling of operating conditions.

HERE'S THE "WORKS" OF A FEDERAL NOARK MAGNETIC MOTOR STARTER

• Double Break Silver Contacts • Accessible Stationary Contacts • Single Screw Movable Contacts • Heavy Arc Barriers for Strength • Ball Bearings & Movable Yoke • Non-Carbonizing Asbestos Base • Vertical Ball Bearing Action • Quick-Change Coils • Overload Relays — Hand & Automatic Reset • Front Mounted Accessible Heaters

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FEDERAL ELECTRIC PRODUCTS COMPANY, MANUFACTURERS OF A COMPLETE LINE OF ELECTRICAL PRODUCTS INCLUDING: MOTOR CONTROLS, SAFETY SWITCHES, CIRCUIT BREAKERS, SERVICE EQUIPMENT, PANELBOARDS

ELECTRICAL WHOLESALING News

Speed-Up Action Continues To Get Housing Rolling

Recent Government orders and directives simplify system to permit freer flow of materials and encourage building. FHA urges production of rental units for veterans

WASHINGTON — In a move to simplify the priority system for housing materials, the Civilian Production Administration and the Office of the Housing Expediter recently announced that building materials dealers no longer would be required to "set-aside" specified quantities of scarce items and hold them for sale to fill only priority orders. Dealers, however, still are required to honor outstanding priorities as they are presented.

Revocation of CPA's "set-aside" requirements was accomplished by amendment of Schedule B of Priorities Regulation 33, the regulation controlling distributors' handling of HH and other rated orders for most of the building materials listed in Schedule A of PR-33. It does not apply to lumber or lumber products which are controlled by other orders.

Suppliers still must give preference to rated orders, up to a ceiling of 75 percent of their monthly deliveries of the items involved, but need not hold stocks in anticipation of such orders, CPA said.

The CPA pointed out that this action was in keeping with the President's recent announcement of a simplified housing program and reduces controls on distribution and permits a freer flow of materials.

At the same time, the Civilian Production Administration announced that controls over housing construction lumber, millwork and hardwood flooring has been modified by an amendment to Order L-359. The changes are expected not only to speed up the housing program but also to accelerate the return to more normal lumber production and distribution.

Principal changes to Order L-359 include: Removal of reserves or set-asides, except of shop lumber and hardwood flooring; elimination of provisions requiring production of hardwood flooring lumber; sawmills and distributors are no longer required to hold housing construction lumber or hardwood flooring lumber for a set period of time and lumber may be delivered on unrated orders where such deliveries do not interfere with deliveries on rated orders. Certified orders are eliminated and those who formerly obtained their lumber by the use of certification authority are permitted to extend HH ratings to their suppliers.

Rentals for Veterans

In order to encourage larger production of rental units for veterans, the Federal Housing Administration announced a

FORMAL announcement of the retirement of David C. Pence, district sales manager of the Westinghouse Electric Supply Co., Los Angeles was made recently by B. S. Manuel, vice president, at a dinner party at the Ambassador Hotel. Shown with Mr. Pence, who completed 42 years of service to the electrical industry, are, left to right, L. G. Berger, B. S. Manuel, D. C. Pence and John Duncan.

Heat foiled again

and again

and again

and again

The switch mechanism in the new Cutler-Hammer line of safety switches is designed to withstand safely any degree of heat that can be expected from correctly selected fuses.

Because of this advantage and because of the greater ease of installation and convenience of operation, because of proved performance and attractive appearance, Cutler-Hammer wholesalers and more and more alert contractors from coast to coast feature and recommend these outstanding switches. ...CUTLER-HAMMER, Inc., 1425 St. Paul Avenue, Milwaukee 1, Wisconsin.

By the New-

CUTLER-HAMMER
SAFETY SWITCHES
C-H

series of changes in its procedures and policies.

FHA Commissioner Raymond M. Foley said that State and District directors of FHA are being provided with new facilities and expanded personnel to stimulate the immediate construction of rental housing, and he has charged them with the responsibility of securing full cooperation of all branches of the industry in order to accomplish the objective.

Under the FHA program, three broad avenues of approach will be used for obtaining additional rental units: (1) Conversion of existing structures which will produce the quickest action at lowest cost and probably at lowest rentals; (2) construction of more two, three, and four-family houses, which is considered the next speediest method and one which will broaden opportunities for builders and investors; (3) production of more large-scale rental structures.

As an immediate measure to promulgate FHA policies and to obtain the cooperation of industry and lending institutions, State and District offices of FHA have been holding meetings in all principal and secondary cities in all states. The meetings are designed to further the "vigorous housing program" for 1947 recently stressed by President Truman.

Among the policy and procedural changes made by FHA, Mr. Foley cited the following:

Minimum property requirements for multi-family units, which were previously in effect throughout the country, will hereafter be used as a guide, and local FHA staffs may accept alternates that will produce structurally sound and well-designed projects with continuing rental appeal.

FHA's cost estimation system has been revised and various simplifications have been made which will sharply reduce FHA processing time in rental projects seeking insured financing.

Application forms, preliminary drawings, and exhibits are being simplified, and certain other procedures are being discontinued or revised in the interest of time saving.

In cooperation with lending institutions, FHA will give ready consideration in the future to readjustment of mortgage terms in order to enable projects built under present emergency conditions to maintain their competitive market position; this will involve re-writing of mortgages in cases of decreased earnings.

Rehabilitation of large apartment buildings, hotels, or commercial structures will be encouraged to produce added family units, and construction of a large number of rental units of two, three, and four-family structures will be promoted. Sale of the completed rental units will be provided for, to accommodate individual circumstances.

REPRESENTATIVES of Nelson R. Thomas and Thompson-Holmes, Inc., electrical distributing firms on the West Coast, recently met with officials of Landers, Frary & Clark at the Mark Hopkins Hotel, San Francisco. Listening to an amusing story by W. J. Russell, vice president in charge of engineering at Landers, Frary & Clark are: Left to right, Floyd Ford, Stu Paine, George Cook of Thompson-Holmes; Mr. Potter of Nelson R. Thomas; Mr. Russell; Mel Pettis, Jerry Shaar, John Clark, Joe Etienne, Larry Power of Thompson-Holmes and Fred Porter of Landers, Frary & Clark.

N.E.R.A. 1947 Program Of Activities Announced

Leaders of National Electrical Retailers Association meet in Chicago to adopt twelve point program for 1947

CHICAGO — The Board of Governors and the Policy Committee of the National Electrical Retailers Association recently held a meeting in Chicago and adopted a twelve point program of activities for the association in 1947.

Prior to this meeting the N.E.R.A. membership by popular vote had selected the twelve projects as its 1947 program. C. C. Simpson, managing director of NERA, said that this is the first time in history that a national program written expressly by and for the electrical retailer had been adopted for presentation to the electrical industry.

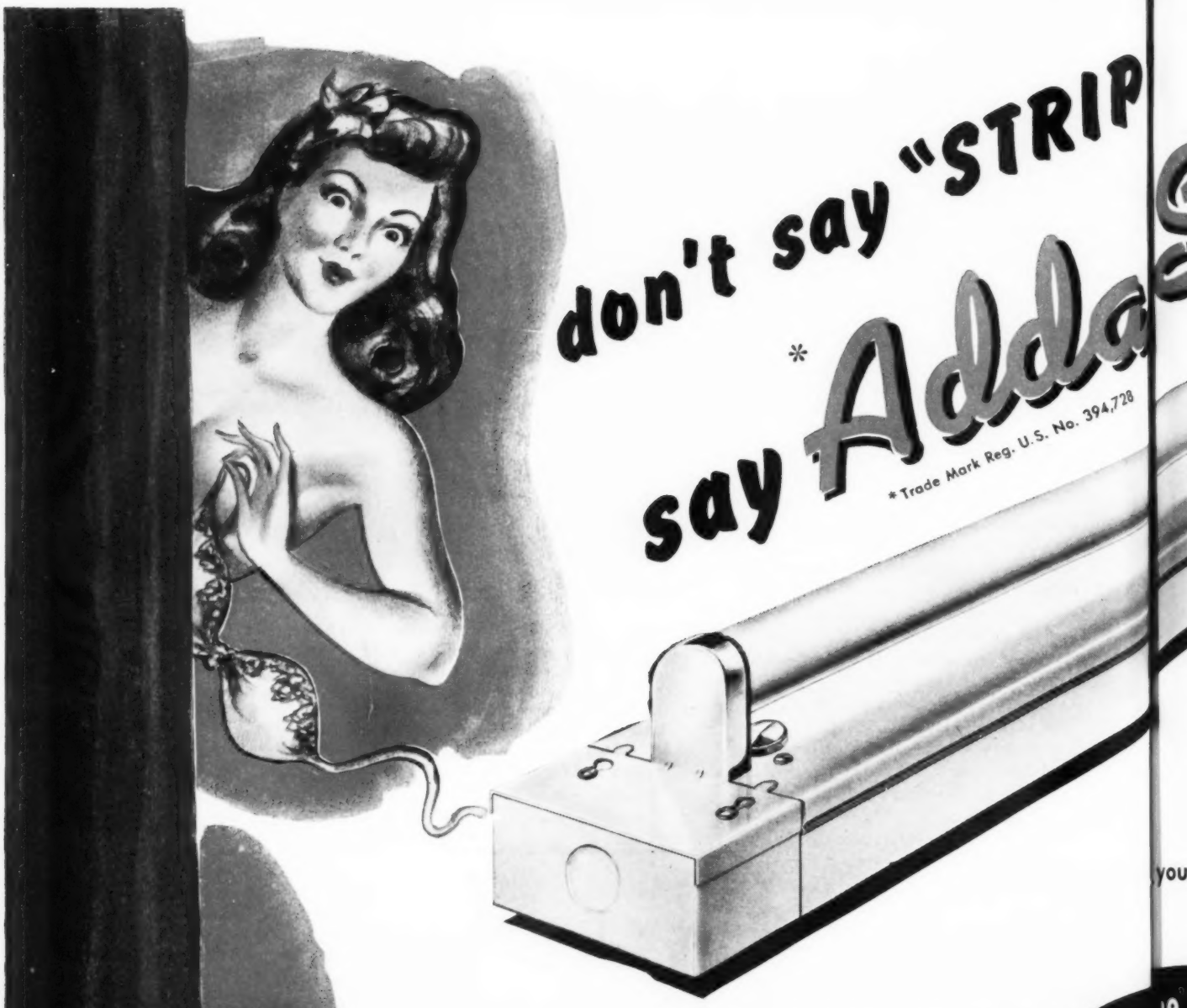
Twelve Point Program

The program as accepted by the board of governors and policy committee included the following projects: Business Efficiency and Sales Promotion; Electric Company Relations; Electrical Product Shows; Expansion of N.E.R.A.; Adoption of Fair Trade Standards; Industry-Wide Promotions (Adequate Wiring, Go-All Electric, etc.); Installation Fees; Legislation; Manufacturers-Wholesalers Relations (including a drive for 40 percent functional discount); Rural Electrification Promotion; Taxing of Co-ops; Trade-In Guide.

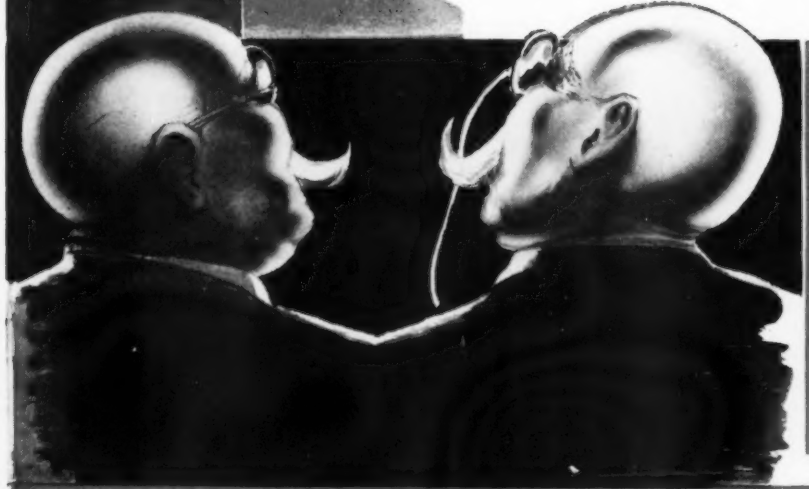
Paul Kees, president of the association, was unable to attend the meeting due to illness. In the absence of Mr. Kees, the meeting was presided over by Herb Names, of Herb Names, Inc., Denver, Colo., who is vice president of the association.

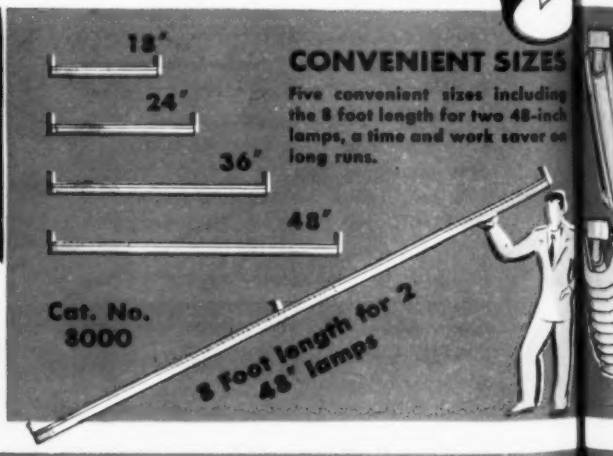
Members Attending

In addition to Mr. Names, the following members of the board of governors and policy committee attended: John B. Duff,



Also available in 2 Row, 100 watt and Slimline "Adda-Strip" . . . all with the same features as No. 8000 illustrated.




18"
24"
36"
48"
CONVENIENT SIZES
Five convenient sizes including the 8 foot length for two 48-inch lamps, a time and work saver on long runs.
Cat. No. 8000
8 Foot length for 2 48" lamps

Established 1898

GARDEN CITY PLTG. & MFG. CO

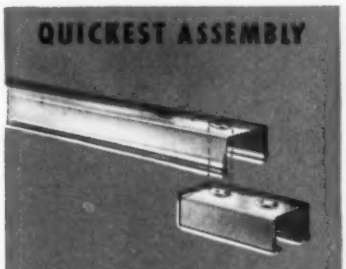
Strip

SOCKETS BACK TO BACK

No space lost between sockets. Single units or long runs, "Adda-Strip" gives you continuous line of light without gaps.

LISTED BY UNDERWRITERS' LABORATORIES

Meets all code and installation requirements.



QUICKEST ASSEMBLY

One screw completes joint. "Nest together" embossings line screw holes up automatically

You'll save money in the long run... and the longer the run, the more you'll save. 18 inches or 18 miles, the unique construction and quality features of "Adda-Strip" add up to quick, inexpensive installations and permanently trouble-free jobs. Take a few moments to learn what "Adda-Strip" offers, and you, too, will resolve to always ask for "Adda-Strip."

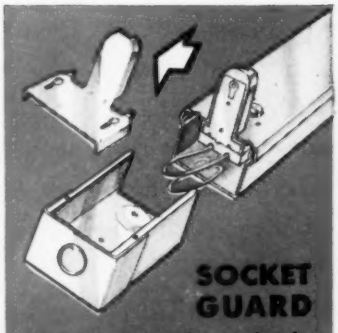
COMPLETELY WIRED AND ASSEMBLED

. . . including starters and E. T. L. approved High Power Factor ballasts

ONLY Flourescent Line Lighting Source with All these Features!

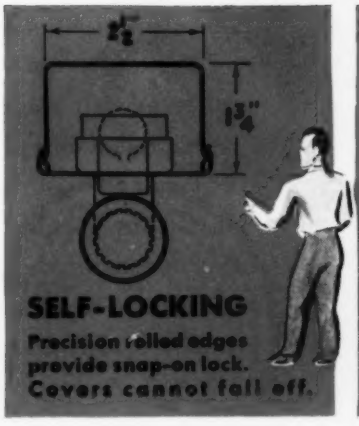
ACCESSORIES AVAILABLE

Well designed reflector strips for every purpose! Complete, hinged louver shields to transform "Adda-Strip" into handsome louver fixtures! Handy! Easy to attach!



SOCKET GUARD

Metal end guard completely encases socket, protects it against breaking or bending.



SELF-LOCKING

Precision rolled edges provide snap-on lock. Covers cannot fall off.

LEAD WIRES

Only "Adda-Strip" provides. No. 14 lead wires on each end of each unit.

HEAVIEST GAUGE METAL

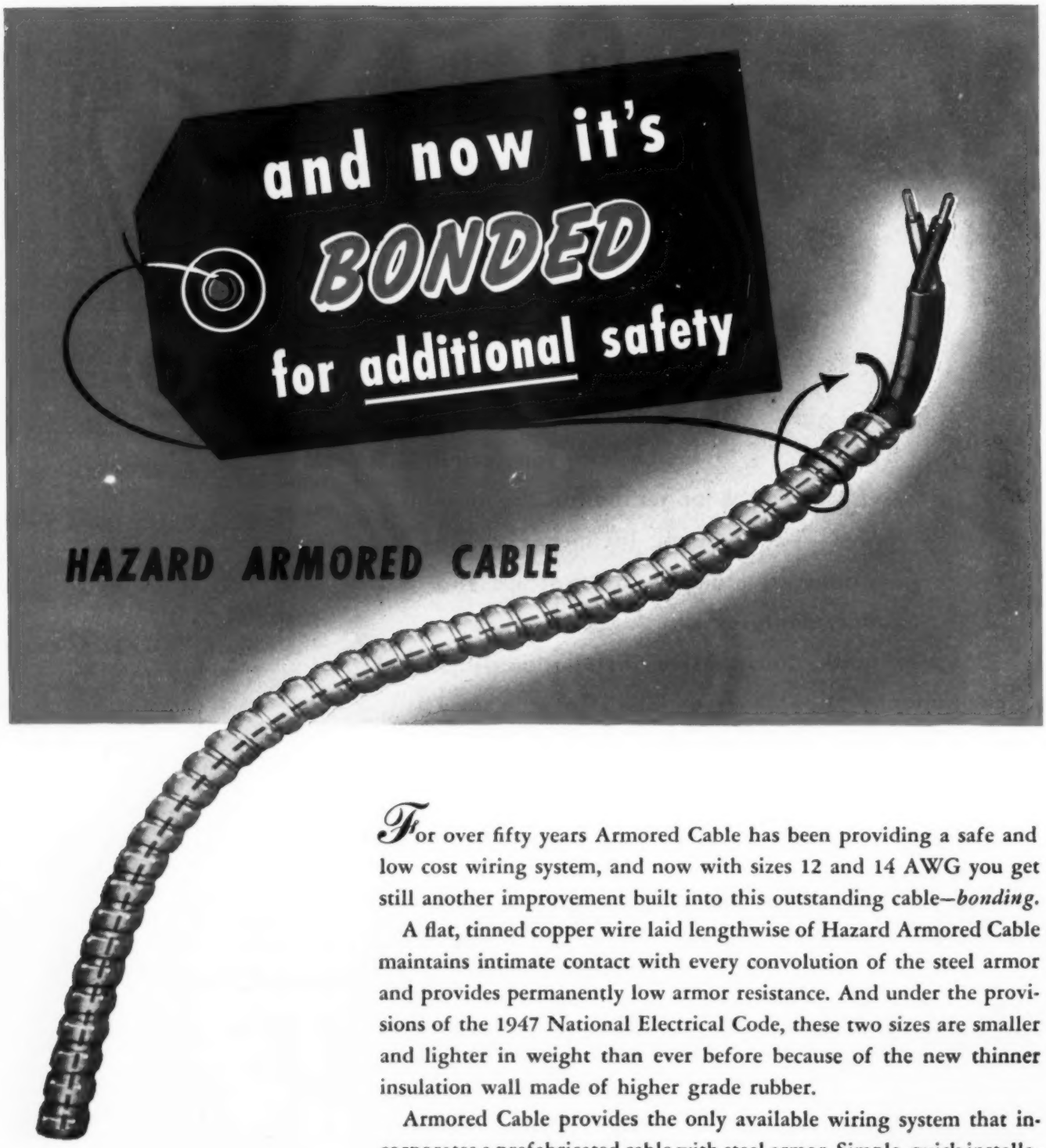
Does not distort or lose its shape.

A GARCY PRODUCT

CO CHICAGO 8, ILL.

Representatives Everywhere

NEW YORK OFFICE AND WAREHOUSE—600 BROADWAY



For over fifty years Armored Cable has been providing a safe and low cost wiring system, and now with sizes 12 and 14 AWG you get still another improvement built into this outstanding cable—*bonding.*

A flat, tinned copper wire laid lengthwise of Hazard Armored Cable maintains intimate contact with every convolution of the steel armor and provides permanently low armor resistance. And under the provisions of the 1947 National Electrical Code, these two sizes are smaller and lighter in weight than ever before because of the new thinner insulation wall made of higher grade rubber.

Armored Cable provides the only available wiring system that incorporates a prefabricated cable with steel armor. Simple, quick installation is thus possible and long, trouble-free service assured. For full information on the new Hazard Bonded Armored Cable, ask your local Hazard representative or write The Hazard Insulated Wire Works, Division of The Okonite Company, Wilkes-Barre, Pennsylvania.

HAZARD

insulated wires and cables for every electrical use

4940

Modern Radio and Appliance Corp., Savannah, Ga.; J. Malcolm Semmes, Chicago; W. T. Slauson, Grayson Appliance Co., Chicago; N. Weinzimmer, Foresthill Appliance Co., Cleveland; Frank Ruth, The Copeland Elec. Co., Alliance, Ohio; Glen Walz, Walz Appliance Co., Walkerton, Ind.; Lewis V. Morris, Morris Dept. Store, West Liberty, Iowa; E. O. Kuehn, General Radio & Supply Co., Belleville, Ill.; F. E. Morrison, Rockford Standard Furn. Co., Rockford, Ill.; J. H. Mansure, United Appliance Service, Chicago; V. G. Brunderman, Brunderman Appliances, Chicago; Ken Stucky, Stucky Bros., Fort Wayne, Ind.; Julius Kovach, Paramount Good Housekeeping Shop, Racine, Wisc.; V. P. Joerndt, Radio Electric Appliance Co., Kensha, Wisc.; A. H. Barrett, Electric Service Co., Stamford, Conn.; M. E. Brunderman, Brunderman Appliances, Chicago; N. J. Sheldon, Sheldon Radio & Appliances, Chicago; L. C. Bell, Felder-Bell Co., West Palm Beach, Fla.; C. C. Simpson, managing director, Washington, D. C.

THE PERRY-MANN ELECTRIC Company "family" enjoyed this dinner immensely. The Columbia, South Carolina wholesaling firm recently held a dinner for members of the organization and their families. During the dinner someone started counting and discovered that the combined service record of the 37 members of the organization totals 478 years.

1947 Activities

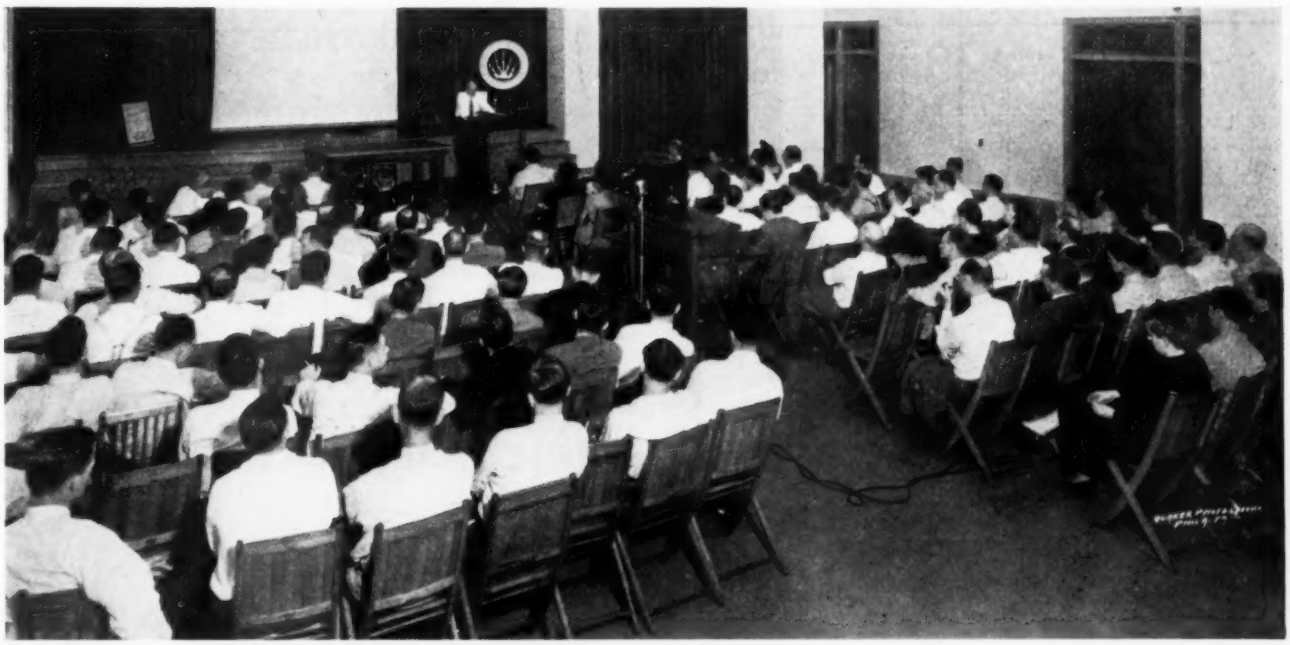
Under its 1947 program of activities the association intends to secure and distribute to members information on successful sales promotions and unique window displays as used by other electrical retailers. The association will supply to its members complete specifications on all major appliances. It will also urge the retailers to use common sense in credit and installment selling practices.

In cooperation with other industry associations, the retailers organization proposes to cooperate in the advancement of all-industry promotion campaigns such as Adequate Wiring, Go-All Electric, Better Light-Better Sight, Farm Electrification, Electrical Interdependence, etc. The retailers will strive to bring about more harmonious and cooperative relations with plumbers and electrical contractors in making installations.

REA Cooperation

The association will endeavor to secure full cooperation with REA to eliminate

(*Continued on page* 112)



THIRD PERFORMANCE. At the request of dealer organizations, the Electrical Association of Philadelphia recently resumed the sales training program which proved so successful in the winter and spring of this year. Including the present third class, a total of 545 men and women have taken advantage of the course to improve their selling abilities.

SERVICE

Partial Record of Thomas Jefferson's Services to the United States

Member of the Virginia Convention 1775. Sent to the Virginia House of Burgesses in 1769. Chairman of Committee drafting Declaration of Independence (approved July 4, 1776): Elected Governor of Virginia in 1779 and 1780. Appointed Minister Plenipotentiary to France 1784. Elected Vice President in 1796. Served as 3rd President of the United States 1801-1809.

Thomas Jefferson when he served in the first Cabinet. From left to right: Knox, Jefferson, Randolph, Hamilton, Washington.

—*The Bettmann Archive*

5th in a series on Thomas Jefferson, Third President of the United States.

"Yesterday, the last of the year (1825) closed the sixty-first of my continued services to the public." Thus wrote Thomas Jefferson as he neared the end of a life devoted almost exclusively to patriotic services.

As Thomas Jefferson exemplified a life made great by worthwhile service so can we all increase the worth of our personal stock by a high quality of service in whatever undertakings may occupy us. The Jefferson Electric Company continues to extend all its efforts toward a type of service which reflects promptness, care and appreciation.

***TRANSFORMERS:** Power Circuit, Mercury Lamp, Oil Burner Ignition, Control, Bell Ringing, and Luminous Tube.*
***FUSES:** Jefferson-Union Renewable Fuses, Super-Lag, and Non-Renewable. BALLASTS for Fluorescent Lamps.*

JEFFERSON ELECTRIC COMPANY

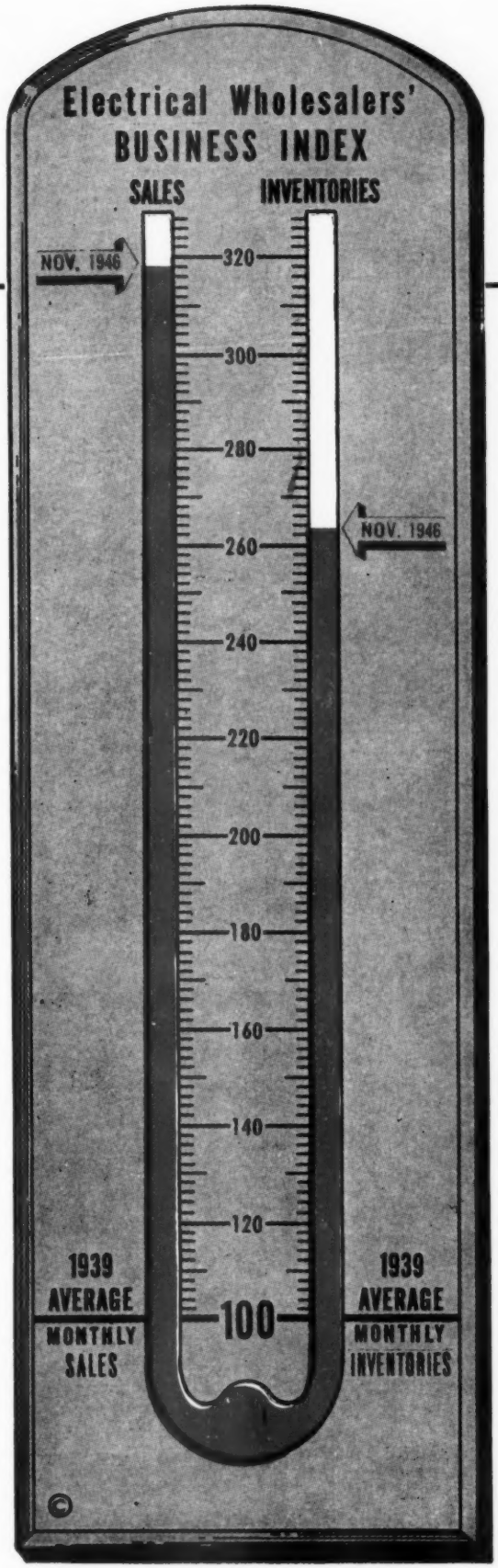
BELLWOOD, ILLINOIS *(Chicago Suburb)*

In Canada: Canadian Jefferson Electric Co., Ltd., 384 Pape Ave., Toronto, Ont.

JEFFERSON ELECTRIC

ELECTRICAL WHOLESALING

FORMERLY WHOLESALER'S SALESMAN



Business Index

For the Month of November 1946

SALES Compared to the previous month, total sales of electrical goods by all wholesalers in November 1946 stayed at approximately the same dollar volume level but, with a larger number of individual reports the average sales per house showed a slight decline. In relation to the average monthly sales of 1939, the November volume was 220 percent higher, as compared to 230 percent for the previous month.

Although this was the first month since the strike epidemic of early 1946 that wholesalers' dollar volume has not shown a monthly increase, the situation should not be viewed with alarm. November was the crucial month of the Fall — a period of a few weeks in which all business first watched the elections, and then started to speculate on probable changes in national policy toward government control of prices and materials, and toward housing controls. The end of the month found all business holding its breath as the coal strike became more probable. None of these conditions could create an atmosphere in which the wholesaler's customers could be expected to continue increasing orders.

INVENTORIES While sales stayed at normal, the flow of goods from the electrical manufacturers to the wholesalers in November 1946 continued to increase, reaching 265 percent of the 1939 monthly average. This was a national increase of 9 percent for November compared to October.

Most important in this month's reports is that in November, wholesalers held inventories which at cost more than equalled the sales volume for that month.

It was evident that wholesalers have been building up stocks rapidly, filling in depleted sizes and styles of many goods, getting again many products and materials which had been war-time casualties.

The return of full shelves is seen by most wholesalers as a basis for starting again to promote markets which have been untouched or inadequately served for several years.

COLLECTIONS Collection percentage for November 1946 was 93. This was 6 points below the collection percentage for the previous month, and 2 points above the percentage for November of 1945. Accounts receivable increased 7 percent over the previous month, and were 113 percent higher than for November 1945.

SOURCE The figures we use as basis for these monthly comparisons of performance in the electrical wholesaling field are collected and compiled by the Bureau of the Census of the U. S. Dept. of Commerce.

Power takes a

MEMO
TO WHOLESALERS
Here's an industrial magazine advertisement currently appearing in 15 publications and chock-full of valuable information for you and your salesmen.

trolley ride*

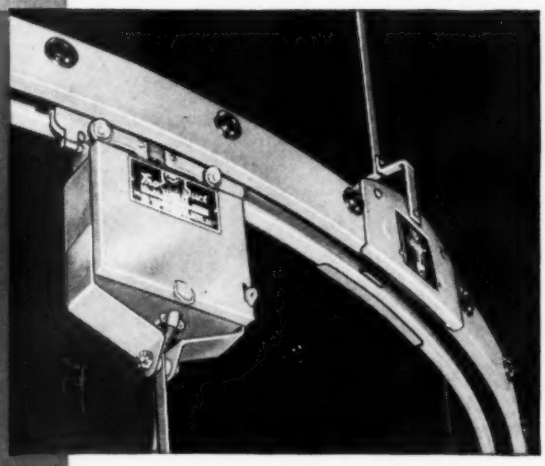
*With BullDog Industrial *Trol-E-Duct*

POWER travels with the job when your cranes, hoists and portable tools are electrified by BullDog Industrial Trol-E-Duct.

It takes only an eight-ounce pull to put power at a workman's elbow —with no danger from entangling extension cords and no possibility of accidental contact with "live" wires.

The moving trolleys, collecting current from bus bars enclosed in a rigid steel duct, provide a source of power that is safe, convenient and economical.

Slotted its entire length, Industrial Trol-E-Duct provides a continuous electrical outlet that completely eliminates the need of rewiring or adding new fixed outlets. Maintenance costs are minimized, because all current-carrying bus bars are firmly supported in the duct casing and long extension cords are unnecessary.



Your plant can have all the advantages of this modern electrical distribution system if you consult a BullDog Field Engineer right away. He'll give you full technical information and show you a BullDog installation near your own plant. Or, if you'd like descriptive literature, write BullDog direct.

• • •

BullDog manufactures Vacu-Break Safety Switches—SafToFuse Panelboards—Superba and Rocker Type Lighting Panels—Switchboards—Circuit Master Breakers—"Lo-X" Feeder BUStribution DUCT—"Plug-in" Type BUStribution DUCT—Universal Trol-E-Duct for flexible lighting—Industrial Trol-E-Duct for portable tools, cranes, hoists.

ADEQUATE WIRING SERVES AND SAVES

BULLDOG

ELECTRIC PRODUCTS COMPANY

DETROIT 32, MICHIGAN. FIELD OFFICES IN ALL PRINCIPAL CITIES.
IN CANADA: BULLDOG ELECTRIC PRODUCTS OF CANADA, LTD., TORONTO

Electrical Wholesaling BUSINESS INDEX

REGIONAL ANALYSIS

NOVEMBER, 1946

ALTHOUGH sales of electrical goods by wholesalers in November 1946 were not evenly distributed by regions, there was no definite indication that the unbalance was other than the local reaction to the uncertainty and waiting that characterized this month of elections and anticipated strikes and changes in national economic policies.

For example, New England, with many industries that are affected quickly by changes in economic trends, reported a 5 percent decline in wholesalers sales in November. The Pacific Coast states, where small and comparatively new industries, plus the inevitable hesitation of distance, could be expected to have a close interest in the changes in national policy, showed a small decline in sales.

Coupled with the New England and the Pacific Coast regions, in reporting declines in sales, were the agricultural regions — the West North Central, the South Atlantic, and the East South Central.

In contrast to these regions, were the "big industry" states in the Middle Atlantic and the East North Central, where wholesalers' sales stayed level or showed a small increase in November. Although the heavy industry in these states couldn't be denied an interest in the elections and the anticipated changes in price control and other government restrictions, the necessity of large industry to make long range plans and purchases, plus acknowledged backlogs in the steel, auto, machinery and appliance industries, would tend to lessen any inclination on the part of these large industries to hold off purchases.

Figures in this table apply to the geographic divisions as outlined and numbered in color on map above

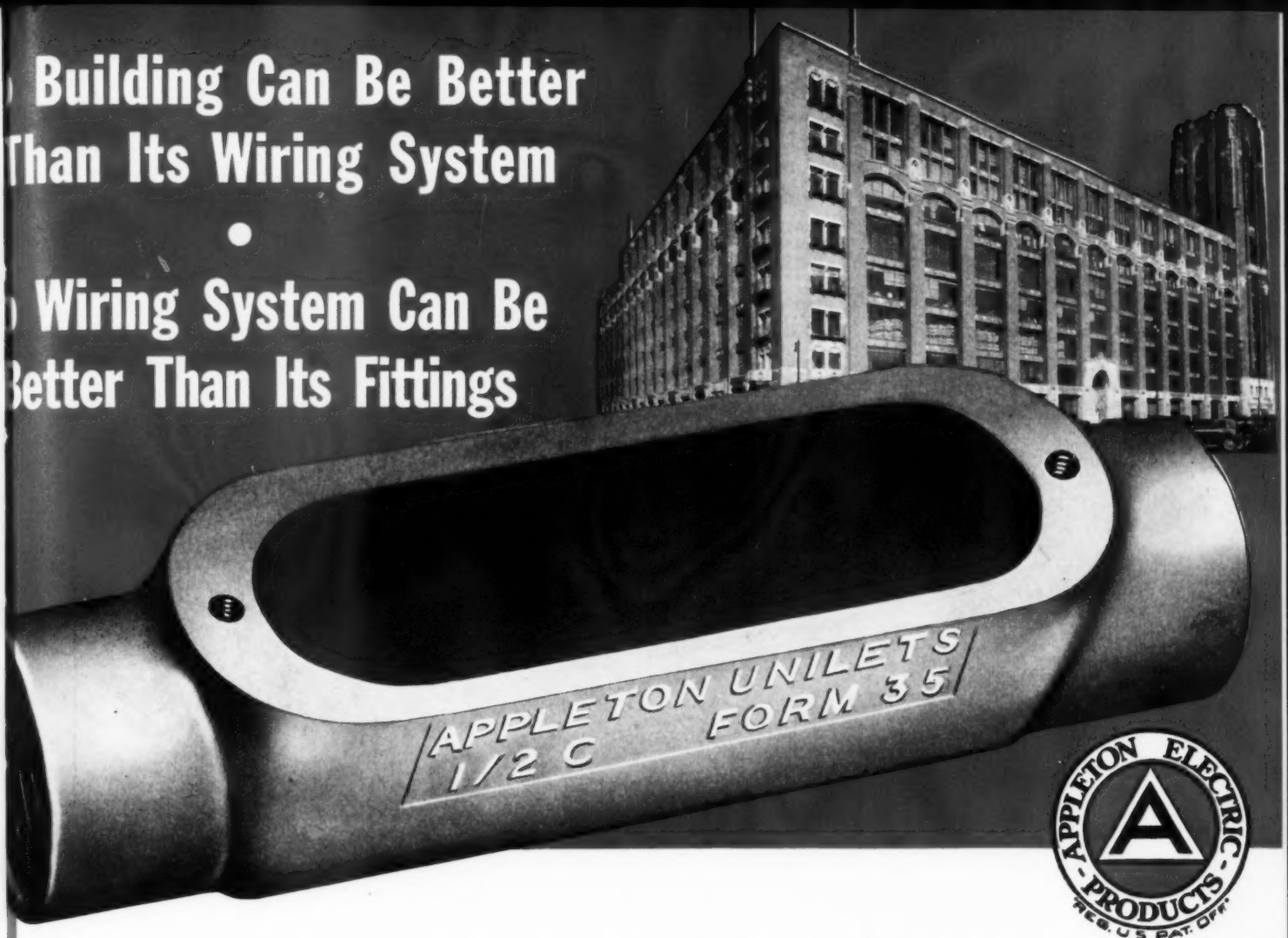
SALES November 1946 Compared in % with Oct. 1946	SALES November 1946 Compared in % with Nov. 1945	Trading Region (See Map)	INVENTORIES November 1946 Compared in % with Oct. 1946	INVENTORIES November 1946 Compared in % with Nov. 1945
95	215	1	111	221
105	208	2	106	224
100	225	3	107	253
98	201	4	105	242
97	200	5	116	207
95	183	6	112	284
104	198	7	113	228
103	205	8	113	242
99	230	9	106	194
100	**264**	For **U. S. A.**	**109**	**225**

Inventories were distributed more evenly among the nine regions than at any time since the problems of shortage and transportation became big factors in the monthly distribution of goods. Influencing this even distribution also is the closer approach to a condition of balanced stocks by many wholesalers, enabling them to order in smaller lots for replacement, when needed.

Building Can Be Better Than Its Wiring System

•

Wiring System Can Be Better Than Its Fittings



APPLETON ELECTRIC PRODUCTS
REG. U.S. PAT. OFF.

Insure LOW MAINTENANCE, HIGH EFFICIENCY, PERMANENCE, SAFETY WITH . . .

ugh outlets . . . in the right places and right kind . . . installed when a plant uilt, or being re-wired, help to keep property young, the department ar- ement flexible, new equipment simple ace.

pleton "UNILETS" are ideal fittings ong-range planning. Their rugged, LEABLE IRON construction; roomy g spaces, and skillful design devel- in more than 40 years of practical make wiring systems efficient, safe, lasting—really make them work. In- tion and maintenance costs are cut minimum . . . usefulness of electrical its is kept high.

e roomy, streamlined Form 35 let" above is only one of more than 00 items in the complete Appleton f fittings, boxes and lighting fixtures, bracketing every electrical requirement from simplest to most exacting. All made to highest quality specifications in Appleton's own foundries and fabricating plants.

Whatever the job, insist on Appleton Fittings—"Standard for Better Wiring."

Sold Through Electrical Wholesalers

APPLETON ELECTRIC COMPANY

1734 WELLINGTON AVE. • CHICAGO 13, ILLINOIS

Branch Offices: NEW YORK, 50 Church St. • DETROIT, 7310 Woodward Avenue • CLEVELAND, 1836 Euclid Avenue SAN FRANCISCO, 655 Minna Street • ST. LOUIS, 420 Frisco Bldg. • LOS ANGELES, 100 N. Santa Fe Avenue ATLANTA, 724 Boulevard, N. E. • BIRMINGHAM, 6 N. Twenty-first Street • MINNEAPOLIS, 305 Fifth Street, S. PITTSBURGH, 414 Bessemer Building • BALTIMORE, 100 East Pleasant Street • BOSTON, 10 High Street • DENVER, 1530 Sixteenth St. • PHILADELPHIA, 1017 Cherry Street

Resident Representatives: Cincinnati, Dallas, Kansas City, Milwaukee, New Haven, New Orleans, Seattle

APPLETON
Malleable Iron
"UNILETS"
REG. U. S. PAT. OFF.

Big Appleton Catalog, describing and illustrating more than 15,000 types and sizes of wiring equipment, gladly sent on request to any user of such material.

APPLETON

UIT FITTINGS • OUTLET AND SWITCH BOXES • EXPLOSION-PROOF FITTINGS • REELITES

50 Years of Achievement

1897

1947

1897 Fifty years ago two men each had an idea. Huntington B. Crouse had an idea. He wanted to be a business man. Jesse L. Hinds had an idea. He wanted to manufacture articles for the electrical trade. A mutual friend brought the two men and their ideas together and on January 18, 1897 the Crouse-Hinds Electric Company was born. It manufactured electrical switches, panelboards, switchboards, and the patented Syracuse Changeable Electric Headlight for trolley cars. The headlight was the forerunner of the extensive line of lighting equipment manufactured later.

1903 The partnership was replaced by a corporation — Crouse-Hinds Company.

1906 A newly invented line of electrical conduit outlet bodies with threaded hubs was now manufactured. A new name was needed, so the word "CONDULET" was coined. It was adopted as a trade mark and registered in the United States Patent Office. Condulets were destined to revolutionize electrical conduit installation practice.

1910 Mr. Crouse formulated a firm policy of equal discounts to all distributors and equal prices to other purchasers. Revolutionary in those days, it has since been generally adopted by the electrical industry.

1911 On a 25-acre plot of land the cornerstone of the present plant was laid. Additional acres and buildings have been added since.

1915 Crouse-Hinds made the first of its now extensive line of floodlights.

1922 Crouse-Hinds built the first modern four-way three-section traffic signal.

1927 Crouse-Hinds developed equipment especially designed for airport lighting.

1929 Pioneer in sports lighting, Crouse-Hinds installed a complete lighting system in a major college football stadium — at Syracuse University.

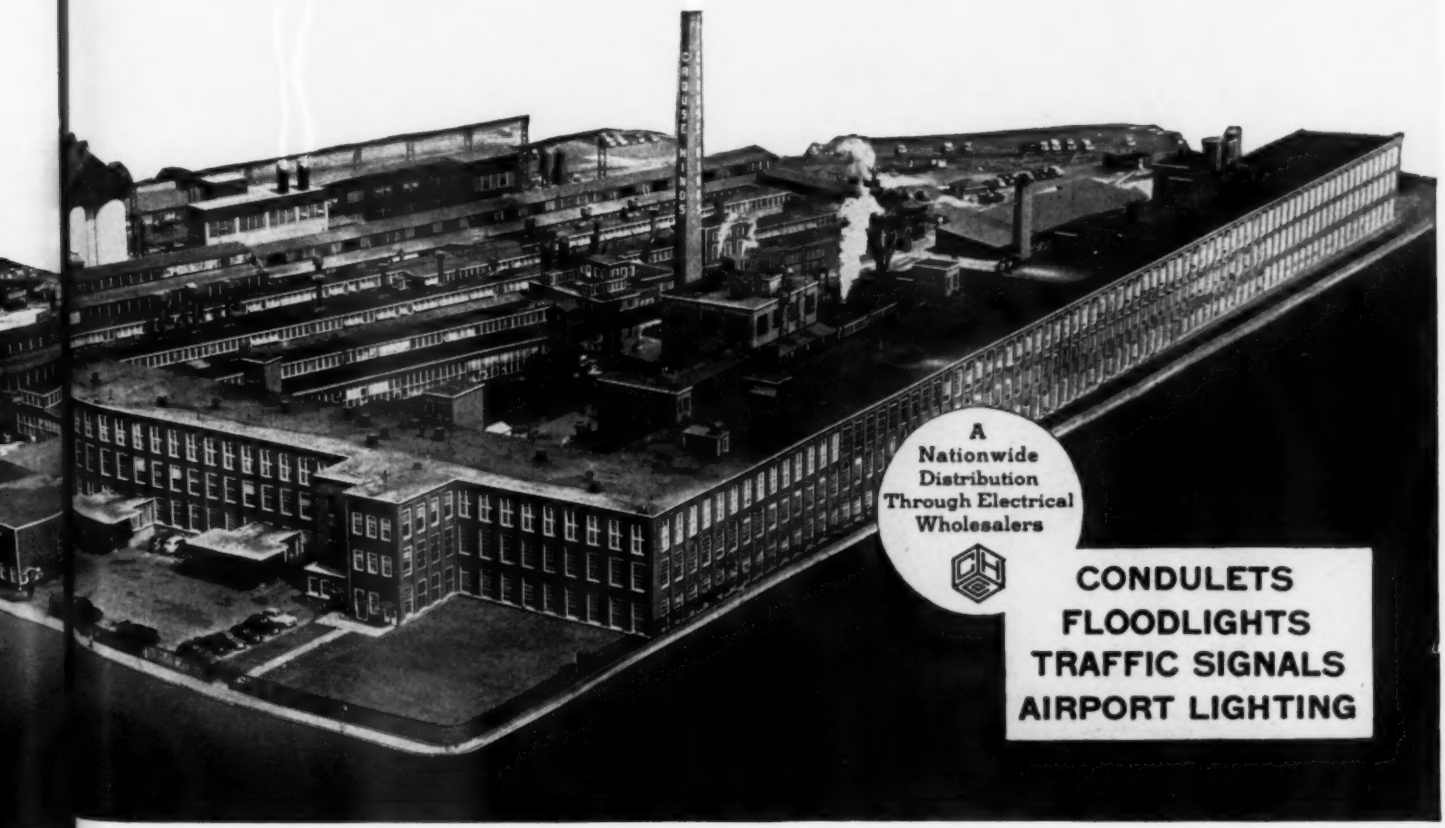
1932 Crouse-Hinds issued the first complete catalog of a line of Explosion-Proof Condulets.

1943 Upon the death of Mr. Huntington B. Crouse, Mr. William L. Hinds succeeded him as President of Crouse-Hinds Company.

1947 Now, after fifty years, the Crouse-Hinds Company has the same objectives with which it started — to make a good product better and to deal fairly and honestly with all.

CROUSE-HINDS COMPANY

Syracuse 1, N. Y.



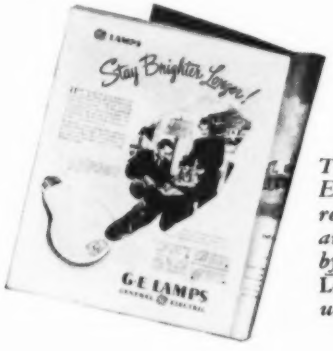
Coming in February . . .

NEW G-E LAMP DISPLAYS

to catch their eye and make 'em buy!

Here's a fast tie-in with the powerful program of national advertising that's on the job week after week, *pre*-selling G-E lamps to your customers. It's a bright, colorful display kit—featuring the same compelling design that will attract millions of readers to the full-page G-E Lamp advertisement appearing in Saturday Evening Post, March 1.

Watch for your display kit in February. It will include the feature display—which is also being produced as a handy bulb basket—a window streamer, and a bulb holder. Remember, more and more people prefer G-E lamps. Make sure your dealers cash-in on this preference by using G-E Lamp display material prominently to give every customer that *buy now* impulse.

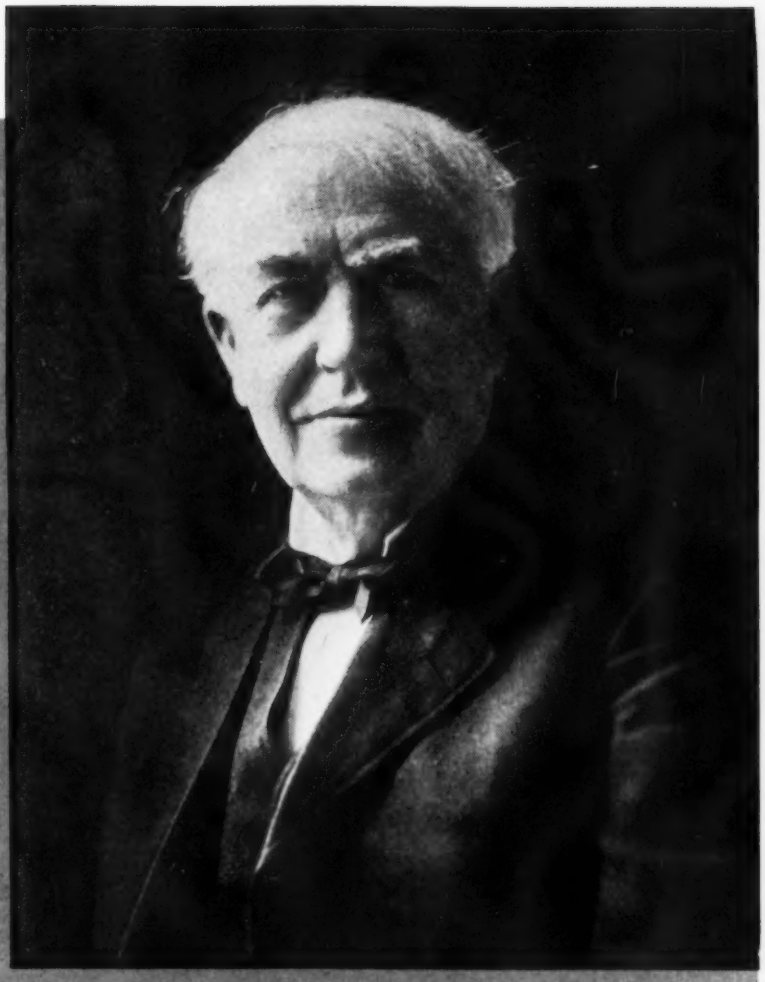


This full-color ad in Saturday Evening Post, March 1, will remind millions that G-E lamps are being constantly improved by research to Stay Brighter Longer! *Note how it ties in with the display.*

Thomas Alva Edison

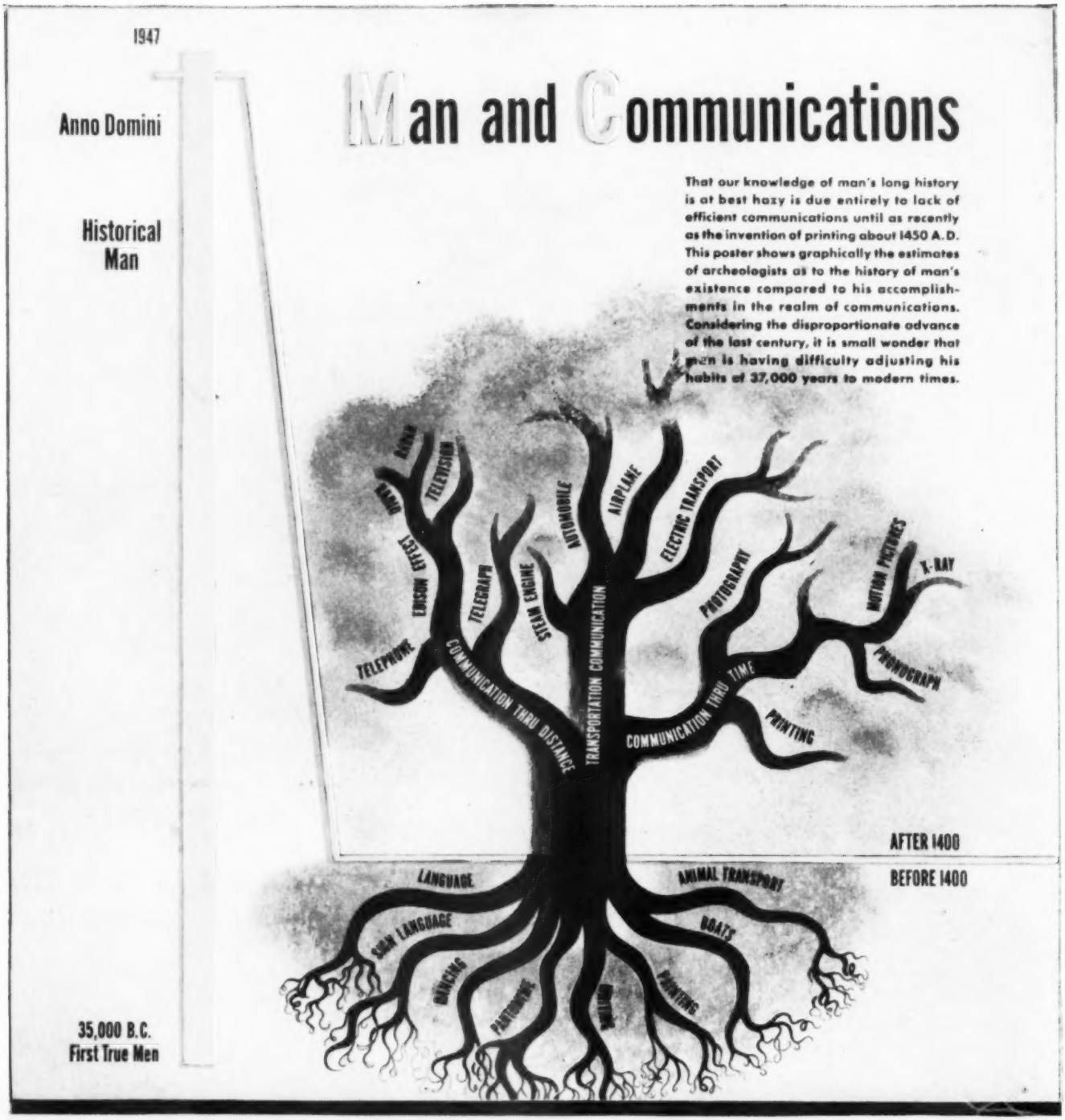
1847-1947

"The mind cannot conceive what man will do in the Twentieth Century with his chained lightning."



MAJOR CONTRIBUTIONS TO THE ELECTRICAL FIELD

Electrical Vote Recorder
Stock Ticker
Carbon Rheostat
"Etheric Force"
Electric Pen
Carbon Telephone Transmitter
Phonograph
Incandescent Electric Lamp
Systems Of Current Distribution, Dynamos, Fuses, Switches
"Edison Effect"
Ship-To-Shore Wireless Telegraphy
Motion Picture Projector
Motion Picture Camera
Fluoroscope
Fluorescent Electric Lamp
Edison Storage Battery
Universal Electric Motor
Electric Safety Lantern
Telescribe


1947
Anno Domini
Historical Man
35,000 B.C.
First True Men
Man and Communications
That our knowledge of man's long history is at best hazy is due entirely to lack of efficient communications until as recently as the invention of printing about 1450 A.D. This poster shows graphically the estimates of archeologists as to the history of man's existence compared to his accomplishments in the realm of communications. Considering the disproportionate advance of the last century, it is small wonder that man is having difficulty adjusting his habits of 37,000 years to modern times.
RADIO
TELEVISION
TELEPHONE
EDISON EFFECT
TELEGRAPH
STEAM ENGINE
AUTOMOBILE
AIRPLANE
ELECTRIC TRANSPORT
PHOTOGRAPHY
MOTION PICTURES
X-RAY
PHONOGRAPH
PRINTING
COMMUNICATION THRU DISTANCE
TRANSPORTATION COMMUNICATION
COMMUNICATION THRU TIME
AFTER 1400
BEFORE 1400
LANGUAGE
SIGN LANGUAGE
DANCING
PANTOMIME
ANIMAL TRANSPORT
BOATS
PAINTING

The Communication Tree

Edison AND HIS ACHIEVEMENTS

The Edison Memorial at Menlo Park, New Jersey, the birthplace of the incandescent lamp, is a fitting tribute to the man whose genius and foresight first gave the world a practical lamp and a system of electric current distribution so that all could benefit from it.

"MY desire is to do everything within my power to further free the people from drudgery, and create the largest possible measure of happiness and prosperity." Thomas Alva Edison said it—believed it—lived it—and achieved the fullest measure of his desires. The countless hours that he toiled to bring forth new comforts for humanity, create jobs for thousands of people and boost American standards of living not only made him truly one of America's greatest men, but one of the greatest benefactors of mankind in the history of the world.

Charles F. Kettering, director of research for the General Motors Corporation, once said of Edison: "Every citizen is as much a beneficiary of Mr. Edison as if he had been mentioned in his will. The comparatively small sum of money Edison may have received for his inventions is microscopic in comparison with the public's benefit—yours and mine."

When Mr. Edison died Herbert Hoover, then President of the U. S., received a suggestion that the electric current of generating plants be turned off in honor of Edison at the time of his funeral.

In his reply he said: "On inquiry I find that this would constitute a great peril to life throughout the country because of the many services dependent upon electrical power in the protection from fire, the operation of water supply, sanitation, elevators, operations in hospitals and the vast number of activities which, if halted for an instant, would result in death somewhere in the country. This demonstration of dependence of the country upon the services rendered by electrical current to modern life and health is in itself a monument to Mr. Edison's genius."

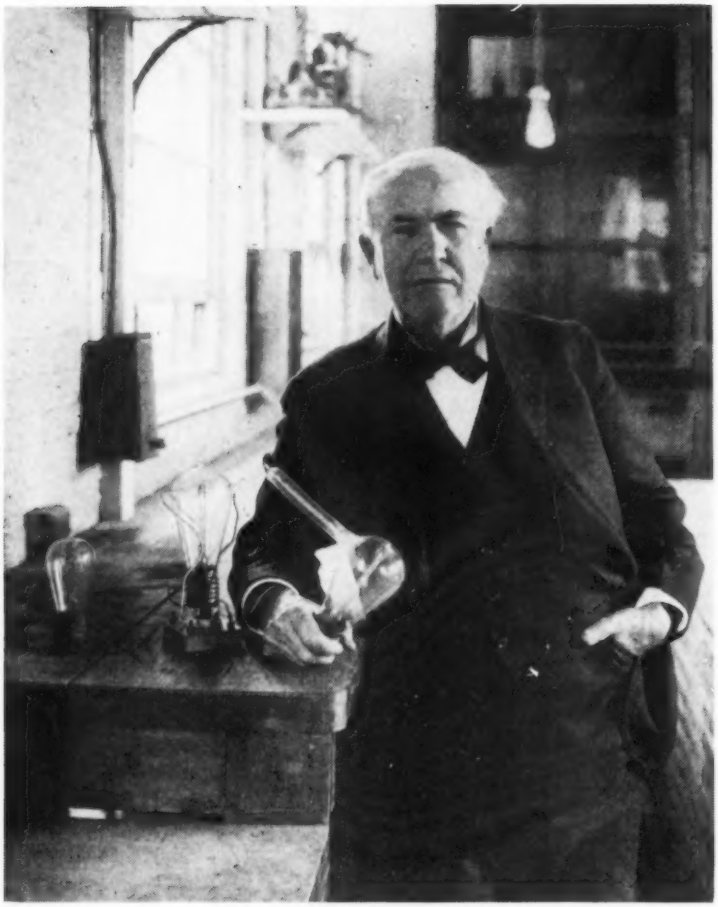
Early years

Like many of America's great men, Thomas Alva Edison was born in humble surroundings, for it was in a small brick cottage on February 11, 1847 in Milan, Ohio that he entered this life.

His great knowledge was acquired through self-study and training under the tutelage of his mother. At the age of eleven he had his own chemical laboratory in the cellar of his parents' Port Huron home. When he was twelve his parents permitted him to become a newsboy and candy butcher on the Grand Trunk Railroad which ran between Port Huron and Detroit.

His first job not only allowed Edison to demonstrate a keen sense of business and knowledge of industry but also led to his association with the electrical industry.

In 1862, at Mt. Clemens, Mich. while waiting for a train on which he was working to be switched, Edison saved the infant son of the station agent from death under a moving freight car. The grateful agent taught Edison telegraphy as a reward. It has been said that this knowledge event-



Edison shown here with his "Edison Effect" lamp of 1883. This phenomenon indicated that an independent wire or plate, placed between the legs of a filament of an incandescent lamp acted as a valve to control the flow of current and from it developed the modern art of electronics.

ually led to his interest in electricity and to the studies and experiments which resulted in some of the world's greatest inventions.

The proficiency that Edison displayed in sending and receiving earned him a job at the age of 17 as a regular telegrapher on the Grand Trunk line at Stratford Junction, Ont. He was fired from this job when a supervisor discovered him using an ingenious device to "report in" while actually napping.

First Sale Of Invention

After a period of serving as a telegraph operator in various cities of the Central Western States, Edison went to work for Western Union as an operator at its Boston office.

In 1869 he left Boston to go to New York where he arrived without money and in debt. He secured a job with the Gold and Stock Telegraph Company. While working for this concern and later as a partner with Franklin L. Pope in their own electrical engineering company, Edison invented the Universal Stock Printer. He received $40,000 for this device, his first money for an invention.

He used the $40,000 to open a factory in Newark, N. J. in 1870 where he manufactured stock tickers and devoted his energies to invention.

An Entire Electrical System

In the years that followed Edison established a record unequalled in all history for turning out new inventions. By the majority of people of today he is best remembered for his invention of the first practical incandescent lamp which he accomplished in 1879.

Edison didn't stop with the incandescent lamp — the lamp was only a small part of his work for the electrical industry. He devised and invented an entire generating and distributing system ranging from giant dynamos to conduits, insulators, fuses, meters and sockets. He invented the multiple arc system which allowed certain lights on a circuit to be lit while others were turned off.

"Etheric Force"

One of Edison's great discoveries was made on Nov. 22, 1875 when he noticed an electrical phenomenon which he called "etheric force." It wasn't until twelve years later that this "etheric force" was recognized as being due to electric waves in free space—the principle on which wireless telegraphy and radio are founded.

On March 7, 1876 Edison applied for a patent on his invention of the "electric pen," the forerunner of the modern mimeograph machine.

Menlo Park, N. J.

About this time, 1876, Edison found that manufacturing and production problems at his Newark plants were demanding more and more of his time, and left him too little freedom for new experiments. To correct that situation and get more time for his research and inventing he turned his factories over to trusted assistants and established new laboratories at Menlo Park, N. J.

Edison applied for a patent on the carbon telephone transmitter which made telephony commercially practicable on August 27, 1877. Until this time telephone communication had been impractical. He sold his rights in the invention to Western Union which, in turn, reached an agreement with the company backed by Alexander Graham Bell. For many years thereafter telephone instruments bore the names of both Bell and Edison. The carbon transmitter helped to make radio possible by leading to the development of a practical microphone.

Phonograph, Radio, Electronics

On August 12, 1877, Edison invented the phonograph — his favorite invention.

In 1883 he discovered that an independent wire or plate placed between the legs of the filament of an incandescent lamp acted as a valve to control the flow of current. He named his discovery the "Edison Effect," and in the same year filed a patent on an electrical indicator employing this principle. This turned out to be the first invention in the field of electronics. Today's radio, radar, television and other marvels of electronics are founded upon the principle which Edison discovered more than sixty years ago.

Probably the greatest years of Edison's life began when he reached

the age of forty. On November 24, 1887 he moved from Menlo Park to his new laboratory at West Orange, N. J.

During the first four years at the West Orange laboratory, he took out over eighty patents on improvements on the cylinder phonograph.

Motion Pictures

During this same period Edison became interested in the motion picture field. On Oct. 6, 1889 the first projection of an experimental motion picture was made at the West Orange laboratory. He applied for a patent on the motion picture camera on July 31, 1891. Later he purchased the rights to a crude machine for projecting motion pictures developed by Thomas Armat. Edison perfected the machine and it later appeared as "The Vitascope." In 1913 he added sound to his machine and called it the "Kinetophone."

In 1896 Edison developed the fluoroscope and in the same year, applied for a patent on the first fluorescent light.

From 1900 to 1910, Edison invented the nickel-iron-alkaline storage battery; applied for a patent on long rotary kilns for cement production and developed the universal electric motor for operating dictating machines on either alternating or direct current.

The year 1914 brought an electric safety lantern for miners, a process for the manufacture of synthetic carbolic acid, and the Telescribe, an instrument combining the telephone and the dictating phonograph to permit the recording of both sides of telephone messages.

World War I Services

In 1915 Edison became President of the newly created Naval Consulting Board at the request of Josephus Daniels, then Secretary of the Navy. In this capacity Edison arranged for leading scientists to serve with him and also made available to the government the facilities of his laboratory. Among the inventions and ideas that the group turned over to the Navy were devices and methods for detecting submarines by sound from moving vessels and for detecting enemy planes, for locating gun positions by range sounding, improved torpedoes, a high-speed signalling shutter for searchlights and underwater searchlights.

On October 20, 1928, Edison was presented with the Congressional Medal of Honor by Andrew Mellon, then Secretary of the Treasury.

A year later on October 21, 1929, the Fiftieth Anniversary of his invention of the incandescent light, the world again paid homage to Mr. Edison. In ceremonies participated in by President Hoover, Henry Ford, Albert Einstein and other world figures, Mr. Edison reenacted the making of the first practical incandescent lamp.

On October 18, 1931 Thomas Edison died at Llewellyn Park, West Orange, New Jersey, at the age of eighty-four. Before he died he saw rubber produced from goldenrod grown in his experimental gardens at Fort Myers, Fla.

When called a genius, Mr. Edison replied, "Genius is one percent inspiration and ninety-nine percent perspiration." To a woman who asked him for a motto for her son, he wrote, "Never look at the clock."

He worked unceasingly for unbelievable periods of time to create useful products and means for wholesome enjoyment in our daily world. During his life time of eighty-four years he produced 1,097 patented inventions. He made the world a more pleasant place in which to live and gave to his contemporaries and all generations yet to come the means for an infinite amount of personal comfort and enjoyment.

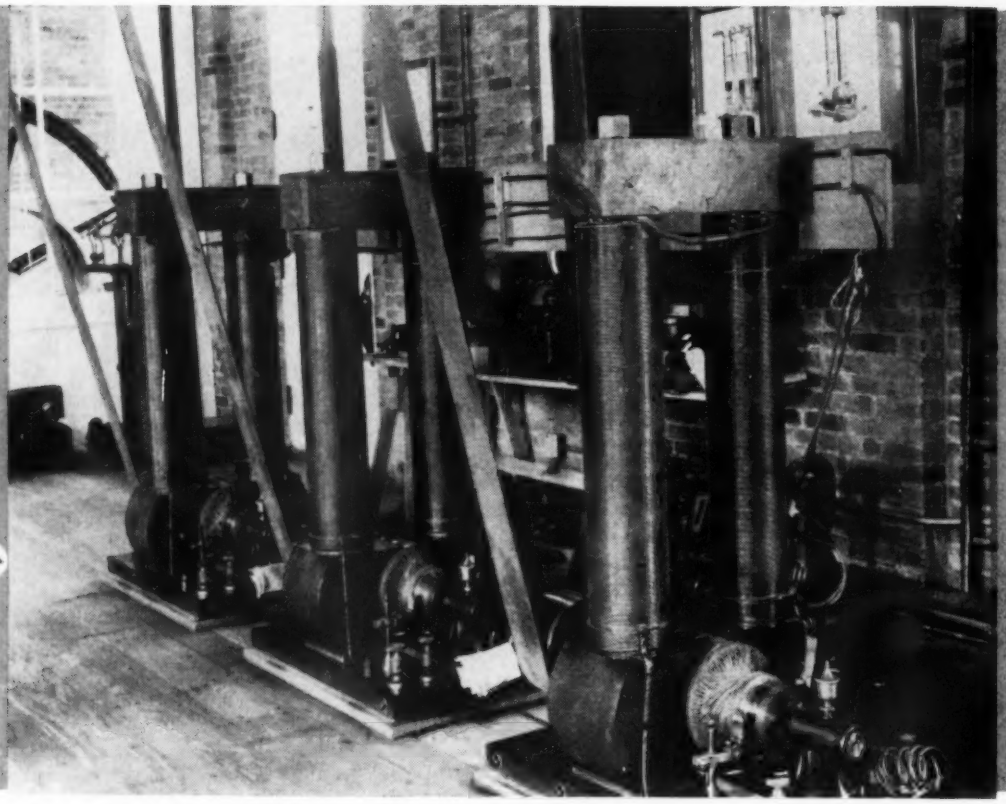
THEN

This interesting study of Edison was taken in Washington, D. C. by Brady, the noted Civil War photographer, when Edison received his first patent on the phonograph in 1877.

Now

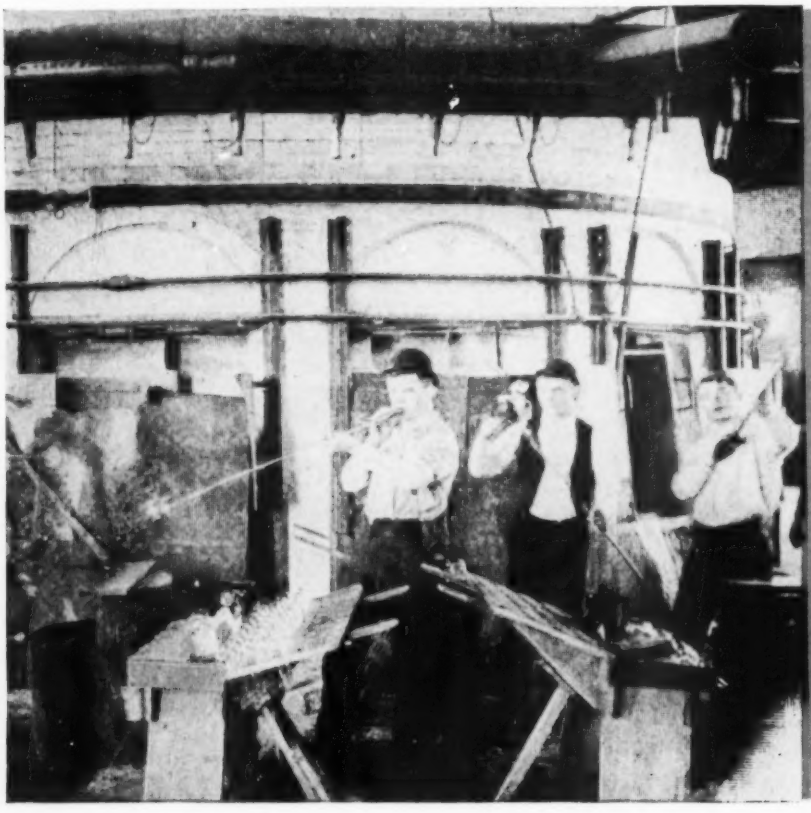
It is a far cry from the first phonograph pictured at the left to the present radio-phonograph combination above, yet in the phonograph Edison brought entertainment pleasure to millions.

THEN



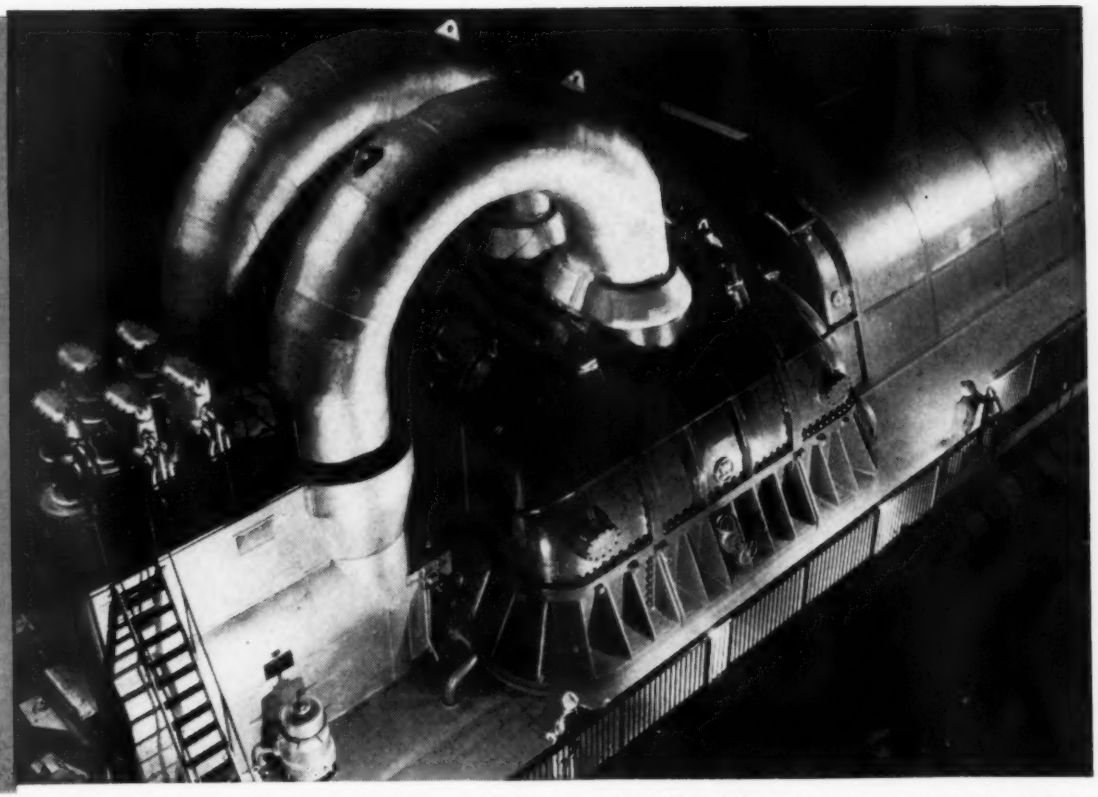
Edison's first model dynamos, nicknamed the "Long-Waisted Mary Anns" by his fellow-workers, were rated at 5½ kilowatts and 90 percent efficiency. Since they produced at over 50 percent efficiency they were the world's first practical generators.

Glass blowers formed glass globes in the early days of the lamp industry, which of necessity limited production and kept cost per lamp high.



THEN

Now

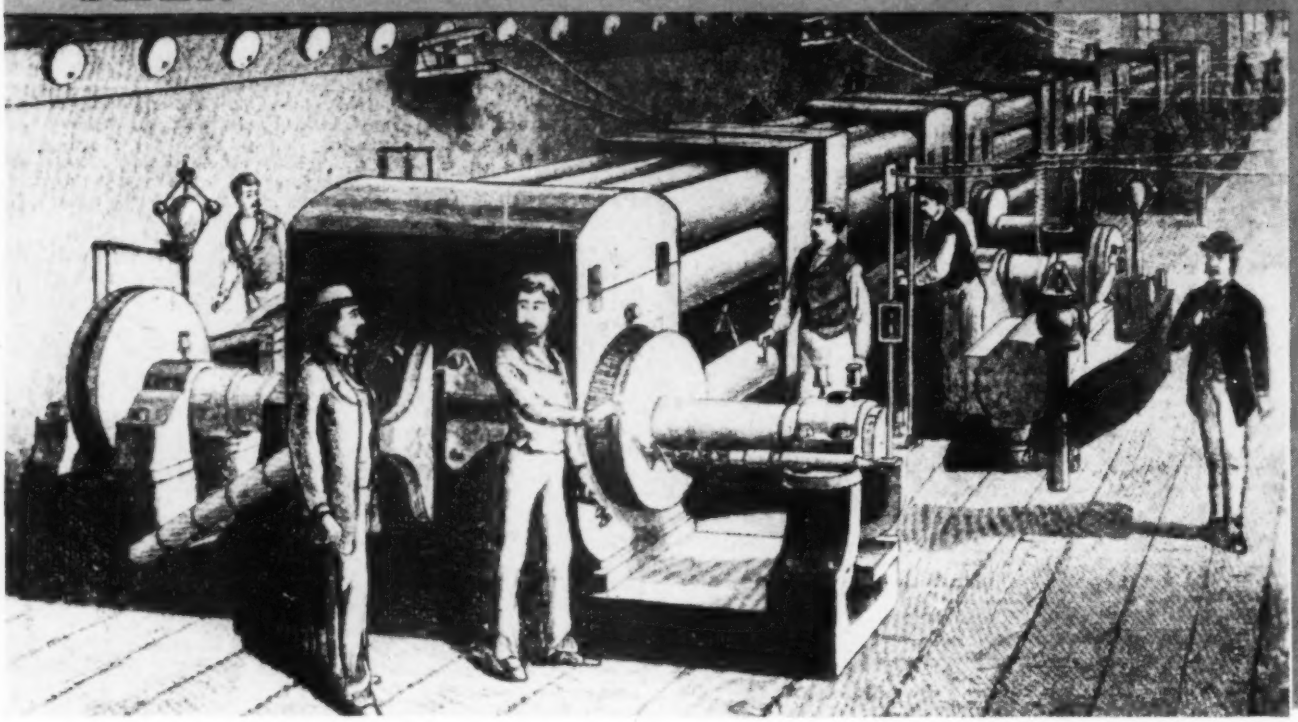


The mammoth steam turbine generator above with its rating of 165,000 kilowatts contrasts strangely with the first dynamos of Edison shown at left, yet from the "Mary Anns" sprang today's vast electric light and power stations.

Here a girl is shown assembling incandescent lamps with the help of modern machinery. A modern bulb blowing machine can turn out 50,000 bulbs per working day of 24 hours.

Now

THEN

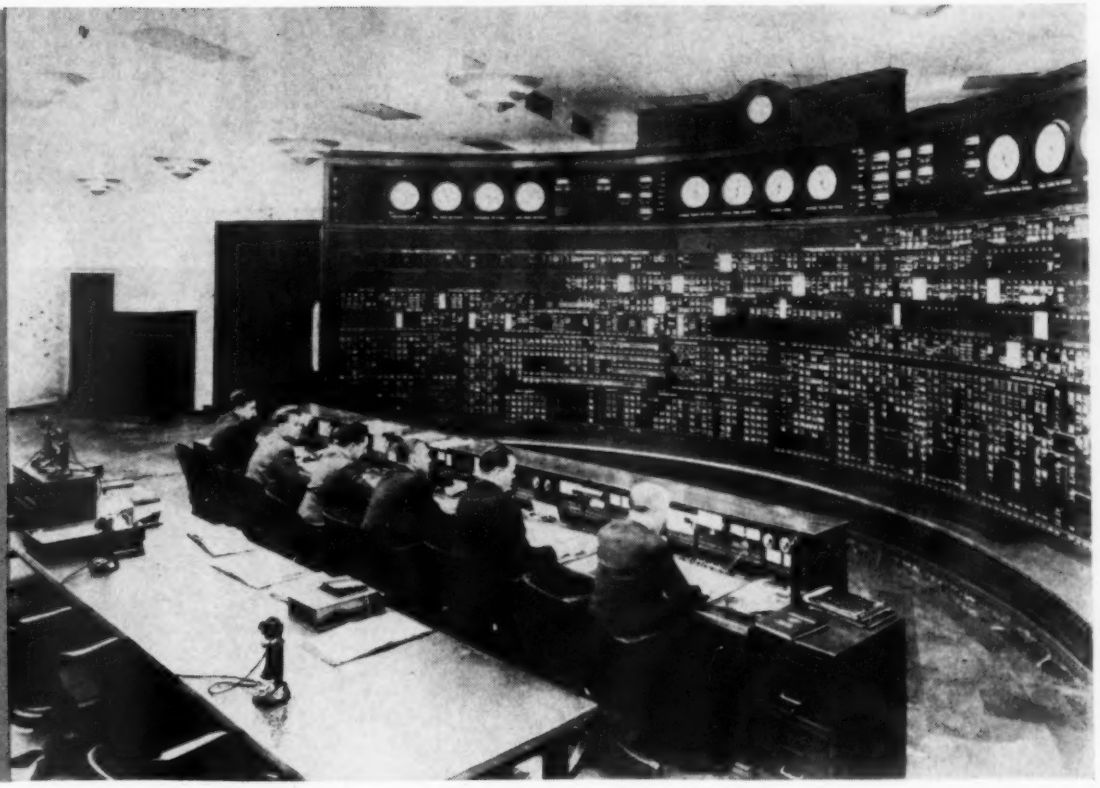


The first commercial central station for incandescent lighting in this country was erected by Edison on Pearl Street, New York City and started operation in 1882.

In November 1880 the manufacture of incandescent lamps was started in this factory about half a mile from Menlo Park; certainly the birthplace of a new industry.

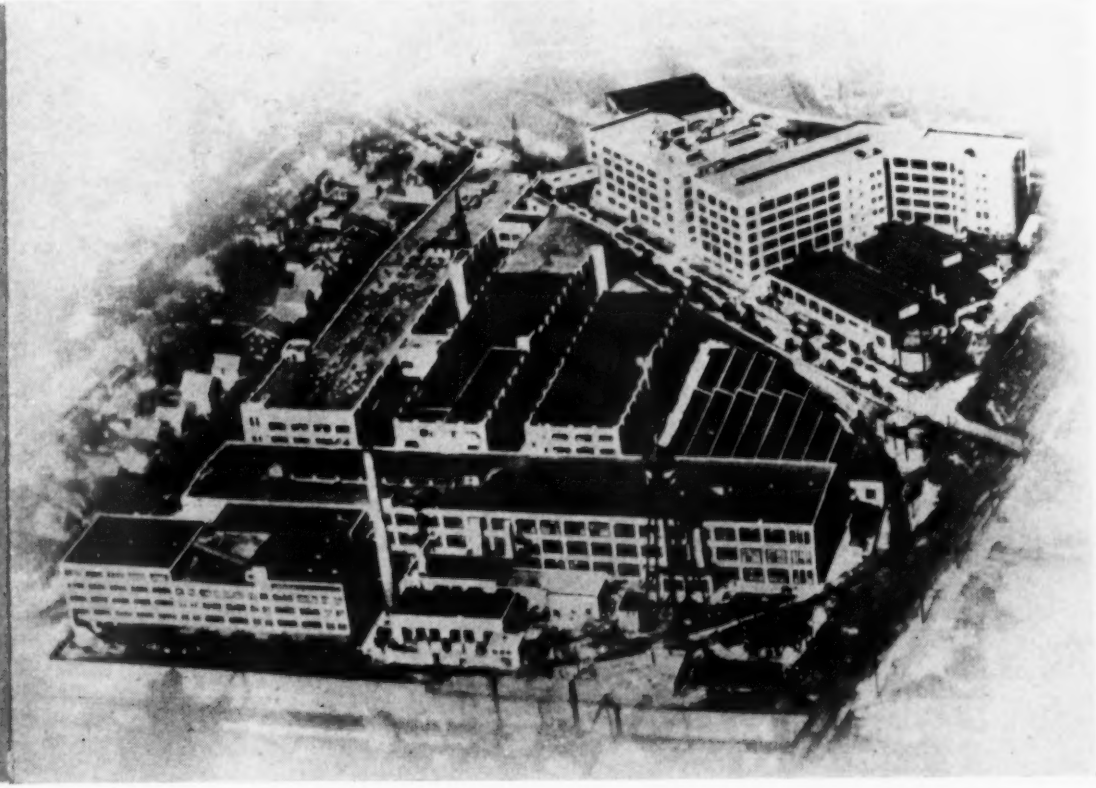
THEN

Now



The control panel of a modern central electric power station indicates the complexities of today's electric light and power distribution systems.

From the millions of dollars and countless hours of labor spent in perfecting the lamp and mass production methods developed for it have come the tremendous lamp factories of today.



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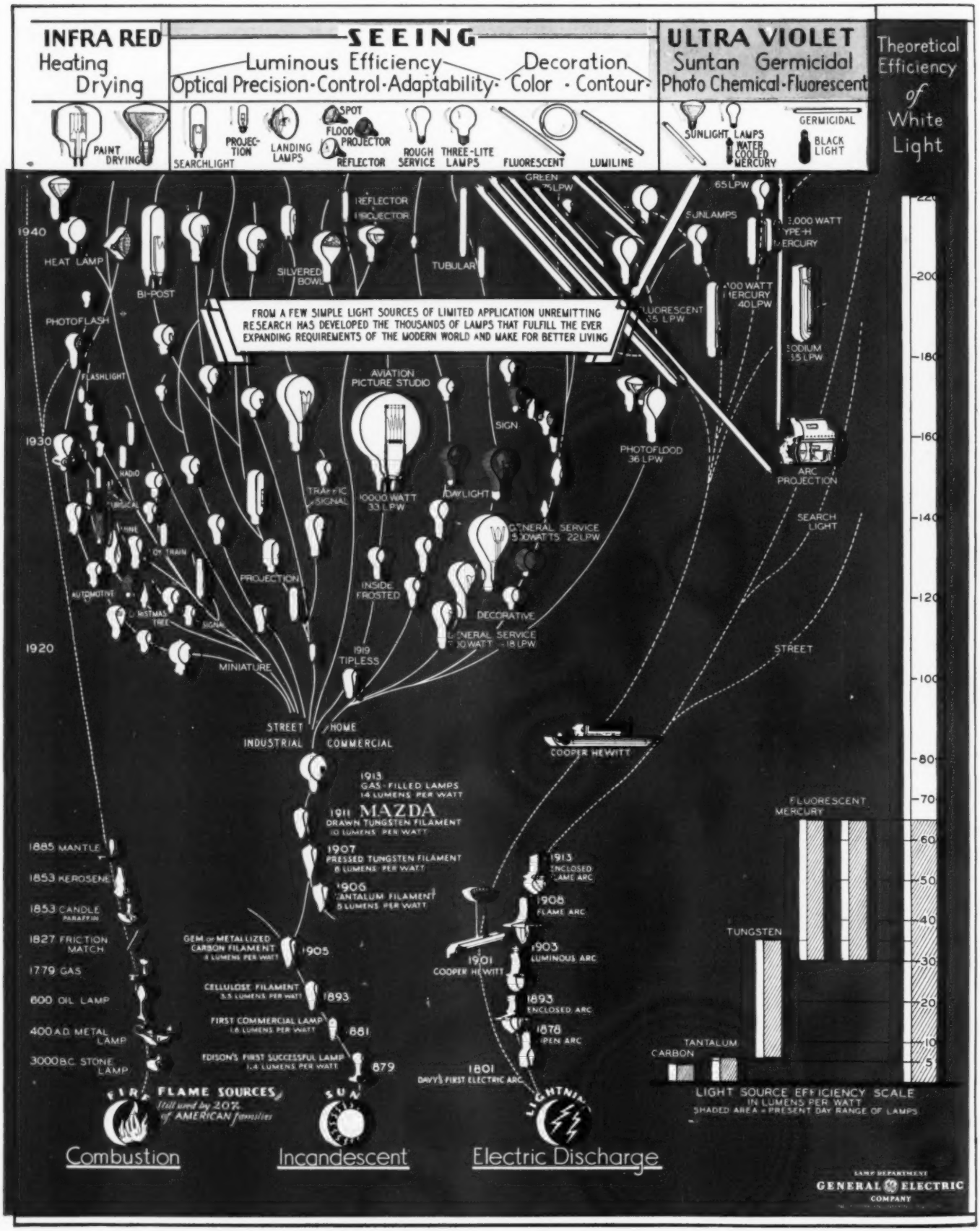
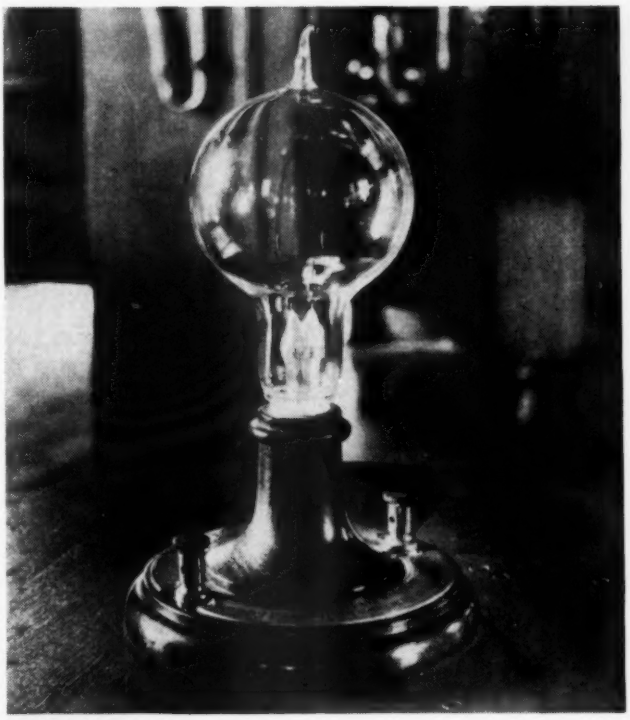


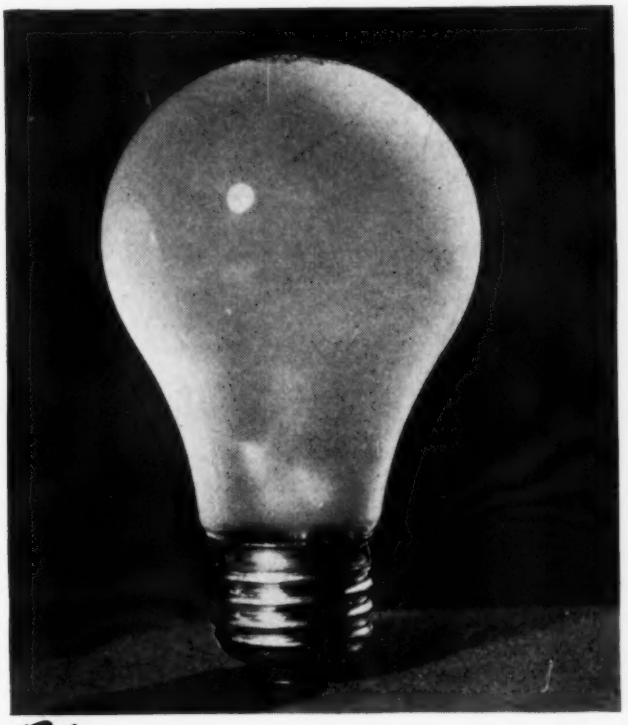
The "Tree of Light"

The Incandescent Lamp—Edison's Greatest Contribution To Man



THEN

On October 21, 1879, Edison made his first practical incandescent lamp, a replica of which is shown above. This lamp embodies the basic features which are found in all incandescent lamps made today and used the carbon filament for the first time.



Now

Today's demand for good lighting requires the manufacture of thousands of different sizes and types of lamps. Improvements such as filament construction and frosted glass have been made but fundamentally the incandescent lamp is the same.

OF the 1097 inventions which he patented, more than three hundred and sixty were inventions in the electrical field and there is little doubt that of them all Thomas Alva Edison's invention of the incandescent lamp has been the most beneficial to all mankind.

That lamp served as the foundation upon which has been built the tremendous electric light and power industry that we know today. For the first electric generation companies were organized to light the areas they served with Edison's incandescent lamps and lighting was practically their only source of revenue.

The incandescent lamp of today appears to be a very simple device that can be purchased for only a few cents. Yet behind the incandescent lamp are millions of dollars and countless hours of labor spent in perfecting it and in developing the manufacturing processes required to make it render such invaluable service.

Edison first began his study of the incandescent lamp problem at Menlo Park in 1877 and then followed two years of continuous, heart-breaking work by him and his fellow-workers.

One of the chief obstacles to be overcome was the development of a filament that would operate at high temperatures without danger of melting. Platinum wire was tried first, but lamps using this metal as a filament consumed a great deal of current in proportion to the light they gave, were short-lived, expensive to make, and were not considered commercially practical. From the very first Edison fully realized that a practical incandescent lamp must be one so inexpensive that it could compete with gaslighting or with the crude arc light of that time.

From his experiences with various forms of carbon for his telephone receiver, Edison knew that carbon had an extremely high resistance compared with platinum.

First Practical Lamp

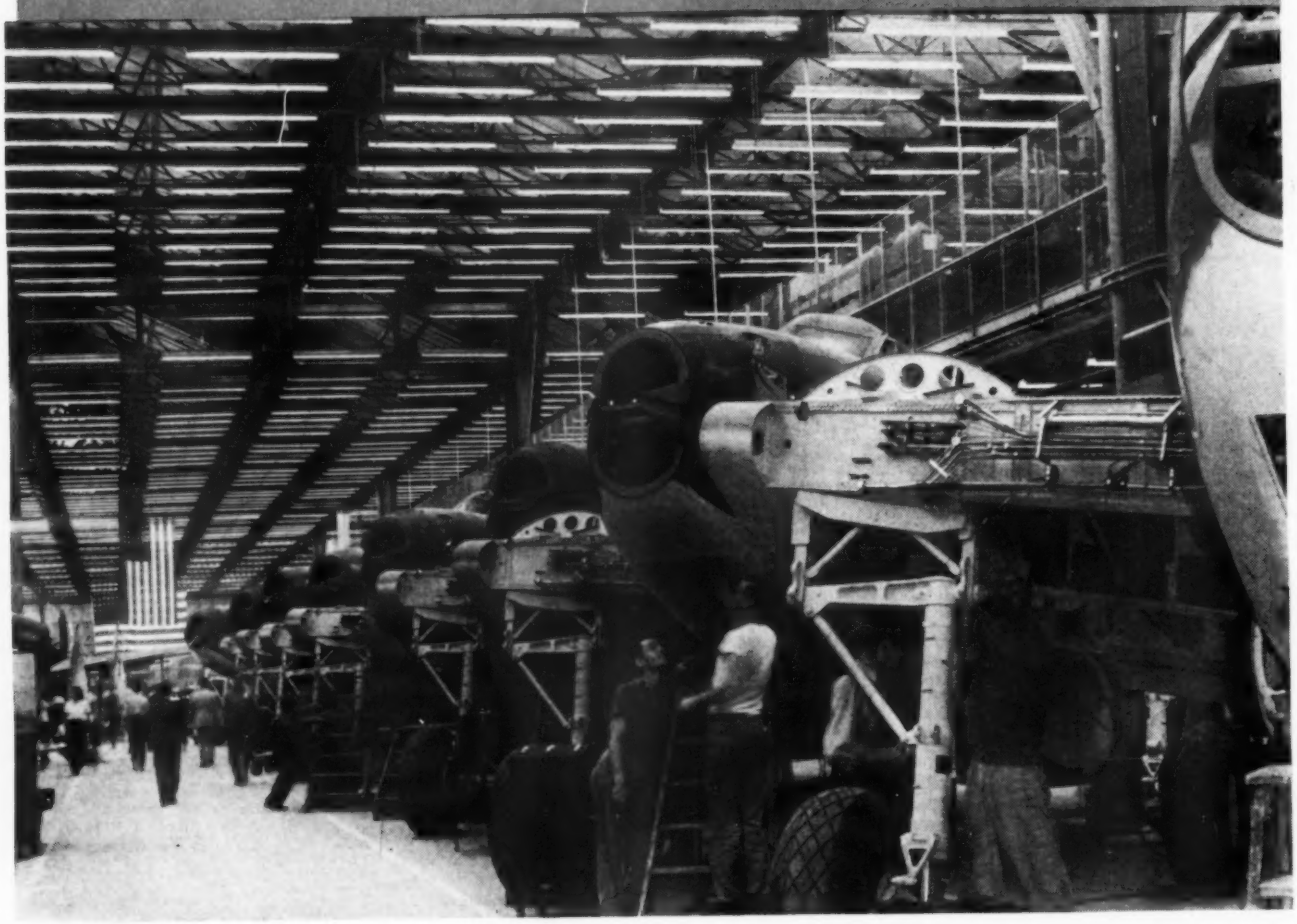
On October 21, 1879 Edison made his first experimental lamp which *embodied the basic features of all lamps made today.* It consisted of a

THEN

In the course of developing the fluoroscope, Edison made and patented the first fluorescent electric lamp in 1896. Here Edison is shown working on an early model of his fluoroscope.

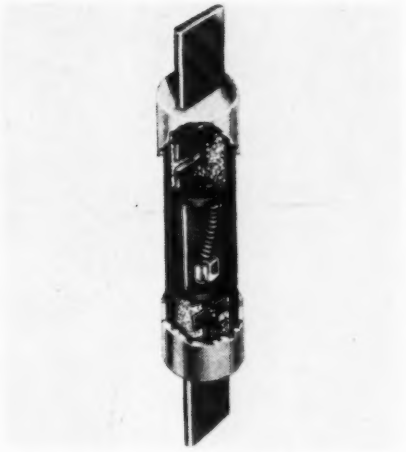
Now

In industry and in commerce, the fluorescent lamp has contributed much to better working conditions and increased production. Now winning wide acceptance in home use, it can do much in furnishing adequate levels of illumination.



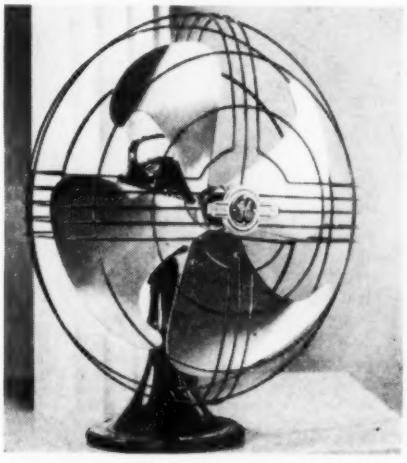
THEN *Now*

To protect circuits from overload Edison invented the lead wire fuse which was universally used.



Based on the ideas of Edison for protecting circuits and equipment today's fuses come in a wide variety of sizes and types.

A typical product of Edison's factories in the eighteen-nineties was this early electric fan.



This modern streamlined fan presents a startling contrast to its ancestor pictured at left.

carbonized cotton thread filament operating in a very high vacuum maintained by a one-piece all glass globe. This lamp, to the amazement of all, burned brightly and steadily for more than forty hours.

Feeling himself to be on the right track, Edison carbonized everything conceivable to make a better filament and found that carbonized paper (bristol board) would give several hundred hours of life.

Public announcement of this first commercially practical incandescent lamp was made two months later, on December 21, 1879, and was met with great disparagement by several leading scientists who held Edison's invention to be a fake.

Undeterred, Edison gave a subsequent demonstration of outdoor and indoor lighting at Menlo Park that furnished thousands of people their first glimpse of incandescent electric lighting and proved that the goal, a system of providing electric lighting from a central station, had been reached.

Invented Distribution System

The true value of Edison's work in the illumination field lies in the fact that he devoted so much attention to the development, not only of a practical lamp, but to a complete system of illumination. Thus, while working at top speed to perfect his lamp he simultaneously invented an entire electric distribution system.

The old constant current or series system then in use with arc lamps could not be applied to the incandescent lamp for if one lamp on the circuit was turned off then the other lamps would go out.

He therefore evolved the multiple or constant pressure system of distribution, and then designed and built a constant voltage dynamo to fit his multiple system.

In the course of subsequent development and perfecting of his electrical distribution system, Edison invented the lead wire fuse to protect the dynamos from overload and extended this type of fuse to protect main circuits from trouble on individual branch circuits so that current would be shut off only from the branch circuit when trouble occurred. Few people realize today that the fuse plug is an invention of Edison which he patented in 1880.

It was necessary also to design a meter to register the amount of current used by each customer and for this purpose Edison built his electrolytic meter—a current measuring device of amazing accuracy.

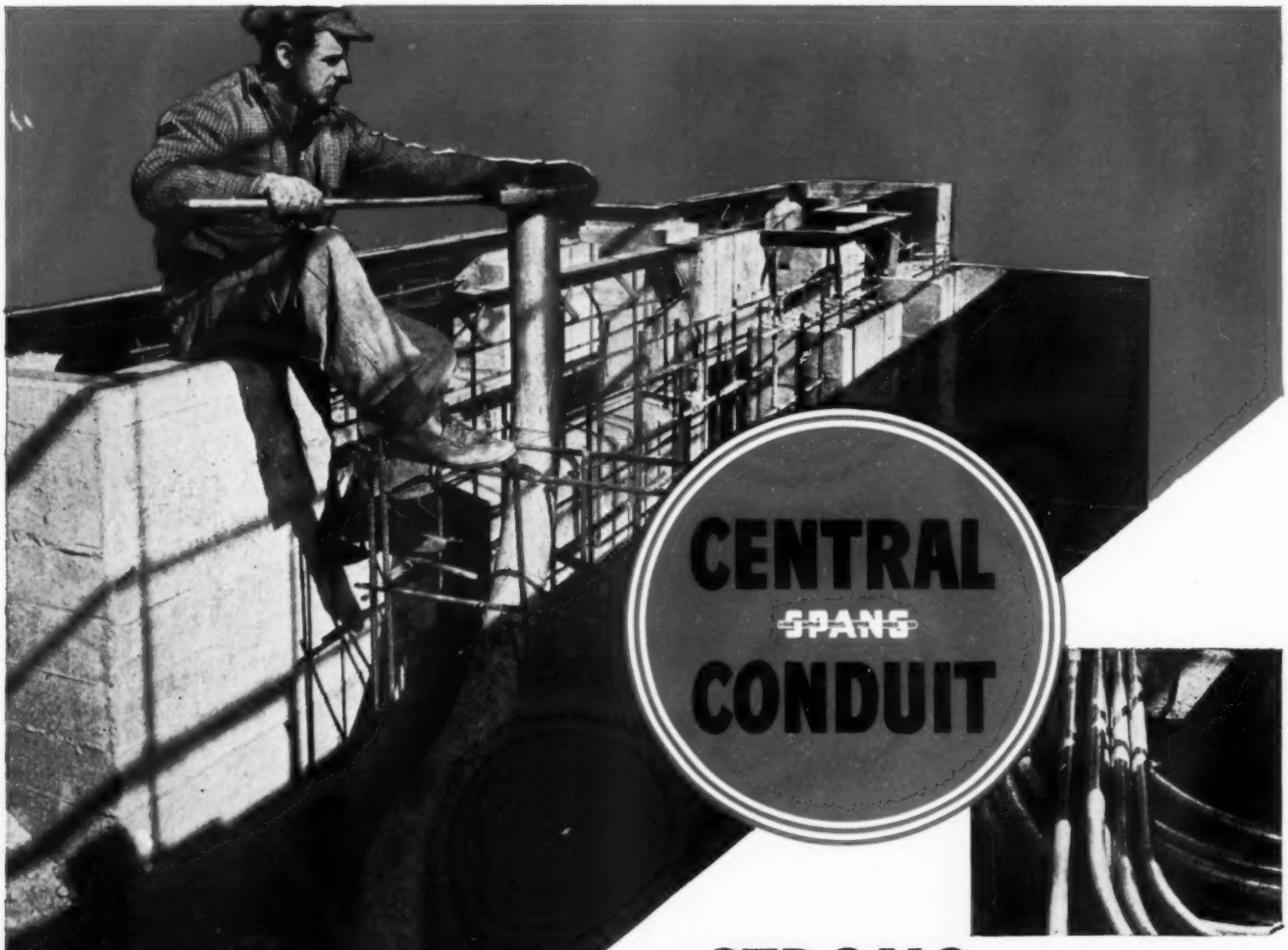
In 1880 plans were started for a central lighting station in New York City and on September 2, 1882, the Edison Electric Illuminating Company of New York started operations with a load of about 300 amperes and supplying 59 customers having a total of 1284 lamp sockets.

The First Fluorescent Lamp

As a result of his work in developing the fluoroscope, Edison invented the first fluorescent electric lamp on May 16, 1896 and pointed the way to a form of lighting that has sprung to such growing importance in the past few years.

It is difficult to realize today that the tremendous residential, industrial and commercial usage of electricity had its humble beginning in the Menlo Park laboratory of Thomas Alva Edison and the true value of his many contributions to the electrical field can never be fully assessed.

Certain it is that he alone knew full well the meaning of his words, "The mind cannot conceive what man will do in the twentieth century with his chained lightning."



CENTRAL ~~SPANG~~ CONDUIT

is STRONG . . . yet easy to bend

PIPE used to make Central Rigid Steel Conduit is carefully selected. Every length chosen must be strong, ductile and of accurate diameter. The finished product provides a dependable, durable wiring raceway which can withstand vibration, and mechanical injury.

Although Central Rigid Steel Conduit has great strength, standard wall thickness and weight, it is easy to bend most sizes with any ordinary hickey.

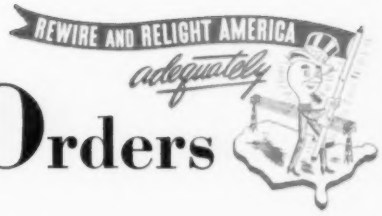
Two types of Central Rigid Steel Conduit are available: "Cenlaco" has a hot dipped galvanized and lacquered finish—"Central Black" has a permanent, baked-on black enamel finish. Both are inspected by the Underwriter's Laboratories, and bear their seal of approval.

Due to material shortages and other conditions beyond our control, it has not always been possible to keep pace with the tremendous demand for Central Rigid Steel Conduit, but the situation is improving. Meanwhile, you can be sure of a fair share of whatever we produce.

"There's Tested Strength in Every Length"
CENLACO (HOT DIPPED)
CENTRAL BLACK
Every length of pipe used to make Central Rigid Steel Conduit is subjected to a controlled degreasing, pickling and rinsing operation. This assures a tight bond between the galvanized or enameled finish and the pipe.

• SPANG-CHALFANT

Division of The National Supply Company
General Sales Offices: Grant Building, Pittsburgh 30, Penna.
District Offices and Sales Representatives in Principal Cities



To Get *Good* Wiring-Job Orders Go "All Out" With Your Contractors

Selling the good contractors when the big orders are "in the works" takes helpful planning, readiness to serve, quick thinking, but those are the things that put the ordinary order taker "on the skids"

By Alan M. Brinkman

Alan M. Brinkman

MY main idea in making contractor contacts and friends is to give service — help them figure jobs; advise them as to the availability of materials; try to give fair distribution of hard-to-get items.

While the large contractors have their own estimators and layout men, this does not mean that they do not welcome help from the salesman in planning jobs, if he has engineering and product knowledge. Particularly is assistance of this kind welcomed in connection with the design and layout of panelboards, switch gears and lighting.

The contractor has to put together a panelboard, for instance, and must bring into it all the elements that are necessary to fulfill the architect's general plan and specifications. To the contractor, this is specialized work. He would probably make more work of it and be more liable to error than the engineering salesman who has figured them so often that they are more or less a matter of routine.

Most salesmen of the wholesalers do this kind of work in their efforts to finally get the contractor's order on the job. Taking them as a whole, it looks like a lot of duplication of effort. But the salesman who does not do it is beaten at the start by the competition. It entails a lot of work, much of it night work, but it is essential in getting the big orders.

Take any large job, we will say an office building. There is a lot of pre-

It entails a lot of work, much of it night work, on the part of the wholesaler's salesman in helping the contractor to prepare his bid but this is essential in getting the big orders.

LEFT—The salesman's best consultant in working up the bid is the purchasing agent or quotation clerk who has at his finger tips all the necessary information on electrical supplies.

liminary work to do. As soon as the job "breaks," settle on several contractors who are most likely to bid on and get the job. Then get the architect's plans and specifications as soon as they are released and figure the job from the standpoint of the quantities and prices of all the electrical materials. Pains should be taken to secure the best prices from suppliers that can be given, considering the quantities involved.

Having assembled all these itemized materials and prices, turn them over to the contractors as the basis of their bids. Most manufacturers would furnish the contractor with these cost figures direct, but that would mean that the contractor would have to go to a great deal of trouble and spend a lot of time to assemble them.

The wholesaler, with his facilities, can do the work much more easily and quickly, and to do it is one of his functions.

It is true that all the wholesalers are doing the same thing, and that there is duplication of effort, the contractor getting several sets of figures. But that cannot well be avoided and the wholesaler's salesman who does not put in the necessary effort to do it is in a very weak position competitively.

A complete, accurate and carefully prepared list of materials and prices enables the contractor to make a better over-all bid. It follows, then, that the salesman should quote his lowest possible prices at the time.

If he consistently does this his contractor friends will be apt to stay with him on the figures submitted. On the other hand, he would soon find himself in disfavor with the contractors if it were his policy to quote higher than necessary and then try to chisel on his prices later, in the hope of getting the order on the materials.

Here and there you may find a salesman who attempts to work in that way, and occasionally a contractor who might fall for it, but this is not the rule. On the face of it, such practice puts the contractor in a poor position, for his bid must be higher than necessary, as a consequence, and he is apt to lose the job on that account.

After the bids are all in and the successful contractor announced, it is my opinion that the big part of the salesman's work begins; that is, to get the total order for the materials or as large a portion of it as possible.

When the contractors bid on the job, all work on the same basis; namely, the architect's plans and specifications as is, without any changes. It is known at the time that there will be changes, perhaps extensive ones.

At the present time, due to the materials situation, many things called for cannot be obtained in time, and substitutions must be made. The plans, even, may have to be considerably changed to arrive at the desired result with the materials available. For all the bidding contractors to try to anticipate these changes and substitution in their bids would make for confusion and complications, so all bid on the specifications "as is."

When contractor "A" gets the job, then the specifications and plans must be gone over with a fine tooth comb,

Alan M. Brinkman is a salesman in the electrical department of the Mine & Smelter Supply Co., Salt Lake City, Utah. His territory is typically Rocky Mountain, containing one large city and comparatively few smaller ones distributed through a great area of snow-capped peaks and mile-high plateaus. In the home town, he works mostly on electrical supplies. On outside territory, he sells the book as they say, meaning both electrical and industrial supplies. In electrical lines, about 35 percent of his sales are to industrials and 65 percent through electrical contractors. Of the latter, there are about 80 all told of which number 10 are large operators. He calls upon the large ones once a week with special calls thrown in but gets to see the smaller ones only once in three or four weeks. What he believes are essential steps in securing business through electrical contractors appears here.

BELOW—The salesman presents the contractor with a complete, accurate and carefully prepared list of materials and prices to enable him to make a better over-all bid.

LEFT—The salesman should discuss the contract details with the contractor and both should carefully analyze the bid and recheck it to avoid costly errors.

and every necessary change indicated, and the reasons given, which must all be threshed out with the architect and individual approval secured on each.

As a rule, the contractor does not relish going into conference with the architect on these matters and it is more or less customary for him to select a wholesaler's salesman to act in that capacity. In my estimation it is good business on the part of the salesman to do this. He is after the final order, and it cannot be placed before these details are settled upon. Therefore, this is nothing more than a service he should render in trying to get it.

For example, a large municipal building is being built in a distant city. I had submitted figures and the contractor had been chosen. It was then found that the panelboard, laid out by the architect in this case, would not take care of the equipment as actually installed.

As a consequence, and as a favor to the contractor, I was called upon to fly down there, a distance of 600 miles, redesign the panelboard and get the approval of the architect, who resided in the same city.

Things like this are not too hard for the salesman to handle successfully, for he comes onto the scene as an outside party with the backing of a large, reputable house and I find that the architect is generally only too glad for his assistance on such matters and will readily cooperate.

Going to the architect on such matters, the wholesaler's salesman is in a better position than the contractor himself to get such changes through. This is because he *knows* the situation on all materials, what can be substituted for what, and if the substitution can be approved what the chances are of getting the substituted material and when.

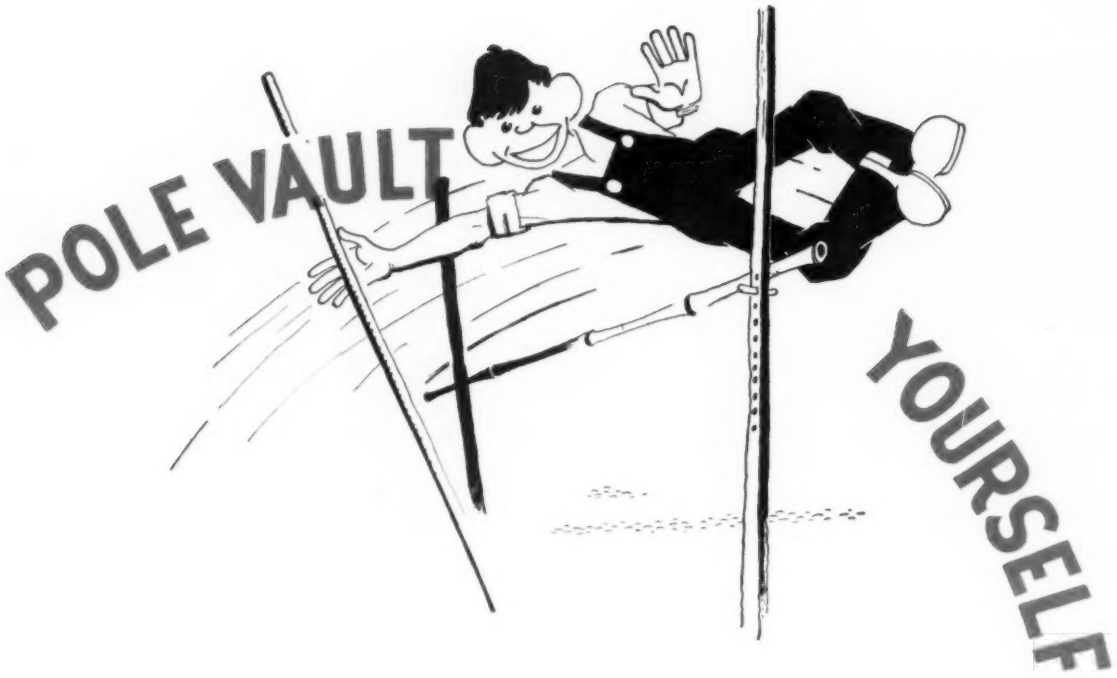
Were the contractor to attempt to do this, while he knows the technicalities involved, he does not know the materials situation as the wholesaler does and he would eventually have to check back and forth with the latter anyway, on most of the substituted items, consuming much time.

Services such as these, consistently offered and conscientiously performed, I believe to be the greatest factor in getting business through the electrical contractor, on all important jobs. The small, staple items sold to the contractor for stock in the regular course of business may bulk up to a considerable amount each year.

Some wholesalers' salesmen, particularly those who are just breaking in on the work, may think they can build up a satisfactory volume of contractor business by faithfully taking care of these day by day requirements — order taking, in other words — and let someone else go after the big job orders.

But I do not think this will work, for the salesman who seldom or never assists on the big jobs will soon find that he is being given less and less consideration on the staples.

BELOW—When the contractor's bid is accepted, it is customary for him to contact the wholesaler's salesman who in turn confers directly with the architect and secures his approval an any necessary changes.



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Distributing, Selling and Servicing Electrical Products for the Farm

From planning and installing adequate wiring and lighting, to selling electrical working tools, pumps, feed cutters, saws, milkers, conveyors, household appliances, it takes salesmen and dealers who know farm work and farmers' problems

THERE are a few generalizations that might well be touched on very briefly if only to establish a kind of perspective of this subject.

1. If America's farms are productive and prosperous our total national economy will be productive and prosperous—and conversely.

2. It is electrical power—power for working and for living—that is absolutely essential to improved and more profitable farming—and this fact is underscored in view of the probably future decline in the price levels for farm products.

3. The greatest single job facing the electrical industry today is to organize a complete, a constructive and a continuing program to sell electrical service and electrical products to the farm. We began the job about 1910 and in 1946—*let's face it*—we are still confronted by the same vast sales problem.

4. If we succeed we will not only create a tremendous amount of business for every branch in the electrical industry but we shall inevitably render the far greater service of literally building on the soil of America a broader, firmer foundation for the future welfare and prosperity of all our people.

So much for the perspective.

By Charles G. Pyle*

Managing Director, National Electrical Wholesalers Association

I might add that I will not attempt to inject any "box-car" figures in outlining the basis for a farm electrification program. Any way you slice the potentials of this vast market for electrical products they are still huge. Our real interest in statistics can only be directed toward *the fact of sales statistics*—and the way we are going to achieve them.

How can the electrical industry *serve* and *sell* the farm market? Please note that *"serve"* comes first.

How can our industry begin *right now* to step up and improve service and, in consequence, build sales of all kinds of electrical equipment and appliances?

The Electrical Dealer

I honestly believe there is a fairly simple answer to that question. It is a solution that is available now. *In my opinion the farm market can best be reached and sold through the electrical specialty dealer.*

Many such dealers are today active in rural areas and, what is of more

The educational part of farm electrification has been well done and today the benefits of electrical living and working are appreciated by practically every farmer. Building desire, however, is only the beginning of the job. Westinghouse photo.

**Excerpts from an address before The National Farm Electrification Conference, Sherman House, Chicago, Ill.*

than passing interest, their training in farm market selling has been completed. They are doing a job but most of them need greater support from the rest of the industry.

The electrical specialty dealer may be one of several types. Ordinarily, he would handle nothing but electrical products, or electrically operated products for the farmstead and appliances and radio. On the other hand, he may manage a hardware or a furniture store, specializing in electrical items. Again, he may be a contractor-dealer, or even a plumber.

Obviously the retail outlet serving the farm field should carry a full line and usually does. By that I mean both

Aggressive cultivation of the farm market by the electrical industry will not only create a tremendous amount of business for every branch, but will immeasurably contribute to making America's farms more productive and prosperous.

the all-important electrical productive equipment in which the farmer finds a natural first interest and appliances and radio receiving sets the sales of which customarily follow.

Of still greater importance is the electrical dealer's ability to install and service the products he sells. That is the kind of work he is set up to handle. It is part of his training, his method of operation, the service he normally renders.

I will not attempt to place any special emphasis on the importance of this phase of selling the farm market because it is too obvious, especially so to this audience. But I do want to say again that it is the electrical specialty dealer who is best equipped to give the farmer the installation and servicing help he needs—when he needs it and where he needs it, which is right on the spot, on the farm.

There are probably as many different kinds of retail outlets attempting to sell the farmer electrical items as there are different products in a large chain drug store. The important point is: Who is the dealer best able to serve and sell this multi-billion dollar market?

The electrical specialty dealer's qualifications are usually excellent with respect to his handling a complete line and his ability to install and service. In addition he has some other special abilities that put him out in front.

It seems to me that a practical way to look at this would be to analyze not only the market we are trying to reach — and that has been done for lo, these many years — but at the same time to take a closer look at the products we are trying to sell. Let's grab at an average price and say that many of our electrical products and appliances for farm use could be called $200 items.

And again we must admit that it is the electrical specialty dealer who is best qualified by experience, training and organization to sell and sell aggressively that kind of product. I said "aggressively" but I want to make certain that I am not misunderstood.

I *do not* mean high pressure selling —certainly not for any electrical product or at any time in the farm market. I mean "aggressive" selling in the sense of doing a thorough job, a follow-through job that will serve the farmer and tend in time to make him an even better prospect and customer for the dealer.

The dealer I'm talking about has some more qualifications on the plus side of the ledger. He is more apt to take on new lines and promote them. He is accustomed to sending out salesmen — men who know the farmer's problems and how to talk to him. He is equally ready to demonstrate products at his place of business and to serve the farmer-prospect who may come there.

The electrical specialty dealer has, more often than not, developed his own financing plans and knows by experience the arrangements best suited to his customers and his own business. Frankly, I do not believe that any special financing plans need be developed. If they should be required some are now available and others could be prepared. Parenthetically, most farmers today are paying cash for the electrical products they buy.

In what I have said about the electrical specialty dealer I have not meant to imply that most of them operating in farm areas represent an ideal set up. I have tried to say what I believe — that they are the best qualified retailers. Our industry should champion the electrical specialty dealer's cause.

The Electrical Wholesaler

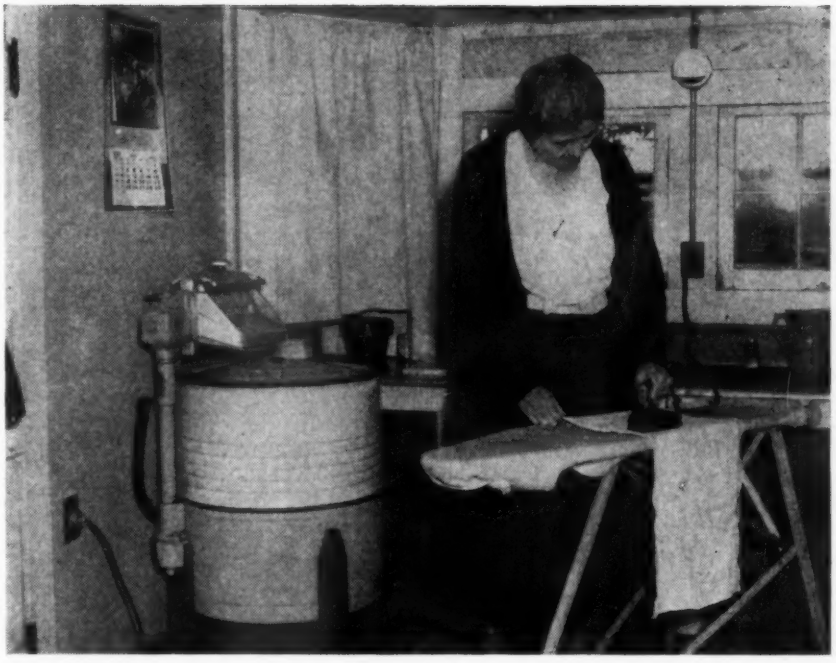
And right there is where the electrical wholesaler and appliance distributor step into the picture. They are in the key position in our industry and, in the regular conduct of their own business, they render many basic services both to their dealers and their suppliers who are the manufacturers.

The electrical dealer serving the farm field can be reached through the electrical wholesaler. I am not going to attempt any analysis of the constructive way wholesale distribution supports our national economy, or even how it has traditionally served our own industry's remarkable record of achievement in all markets, including the farm market. That too, is factual and well known.

Just for the record, however, the electrical wholesaler regularly conducts seven basic services for his suppliers and at the same time, renders eight basic services to his many customers, who in this instance would include electrical dealers in the rural field.

The selling of electrical products is a chain process. It is highly complex and interdependent.

Because the farm market is so vast and specialized the industry's organization to sell to that market must also be specialized. By that I mean that the time has perhaps arrived when we should begin to soft pedal a little on our educational and "missionary" work and get down to cases. If there is any farmer today who does not honestly have a pretty good idea of what electricity would mean to him, one of two things must be true. Either he lives in a sub-marginal suburb of Tobacco



Operating through the electrical specialty dealer, the electrical wholesaler and his salesmen have ready access to a tremendous potential market for time and labor-saving appliances, provided they lay the groundwork for this by close cooperation with the dealer.

Row—or he can't read and never talks to anyone—or both.

I do not mean that we can now sit back and just take the farmer's orders for our products. Not at all. Individually, each sale will have to be the result of sales effort. But let's face the fact. In a few years from now almost every farm in America that can and should have electrical service will have it—and even now we haven't scratched the surface of the sales possibilities in this market.

The direct link with the electrical specialty dealer is the electrical wholesaler. He, for his part, should set up a farm electrification department. If he does not now handle farm production equipment, such as water system, milking machines, etc., he should add them. This whole operation should be directed by a man thoroughly qualified by reason of his special experience and knowledge of practical farming and of electrical equipment and products of all kinds.

Primarily, we are all approaching the farm electrification problem with reference to how best we can break some of the existing bottlenecks. I have tried to present the case for the electrical specialty dealer.

You may have noted that in my discussion of his qualifications as a sales and servicing organization I did not mention wiring—ADEQUATE WIRING. Many such dealers now have a wiring specialist or will soon place one on their staff. We all know that adequacy of wiring is absolutely essential to proper farm electrification.

Adequate Wiring

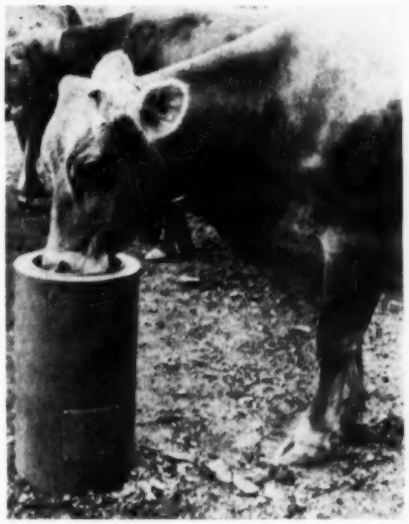
Because the farmer and everyone in our industry is so completely dependent on having the right kind of wiring installed both in the farm home and on the farmstead, I should like to say just a word about wiring in conclusion.

Wiring a farm adequately is an engineering job. It calls for engineering talent in planning a workable layout, one that provides for future expansion. Many power suppliers have made and are now supplying wiring layouts based on a careful analysis of the farm operation and the farm home.

I think that all power suppliers should sell adequacy of wiring in the farmer's interest. They should undertake to blueprint the wiring job and on that blueprint indicate all of the probable uses for electricity—and the appliances and lighting to carry them out—that the farmer may want to have eventually.

Let us be very sure at least of one thing—that adequate capacity is provided and that the farmer thoroughly understands the practical value and the saving to him represented by adequate wiring. The job having been engineered the installation can then be handled by any qualified contractor. It will conform with the farmer's buying decision.

The important thing is that the wiring will have been planned for adequacy, regardless of whether the farmer buyer initially accepts 50 percent of any percentage less than a complete installation.



The electrical wholesaler who plans to serve rural areas will have to gear his operation to this market. This will involve setting up a farm electrification department and extending his stock to carry the electrical equipment and supplies the farmer needs. G.E. Photo.

As for the wiring layout—the blueprint of the farm—I think it should be nailed to the barn door at a good height for easy reading!

And now, before attempting to answer any questions you may have, just a one-two recap.

First—and always first—adequate wiring.

Second—The electrical specialty dealer is the one who is *best qualified* to *serve* and *sell* the farmer. He's got what it takes. With the right kind of industry support he can and will do the job.

Resourceful Wholesaler Makes Quonset Hut His Headquarters

By Howard J. Emerson

THERE was no use trying to continue operating a greatly increased electrical wholesaling business in the cramped quarters the Valley Electric Company's Stockton, Calif., branch was occupying in part of a large building on North Aurora Street. Looking for vacant space was futile and constructing the large brick building the company wanted was a hope that dwindled in the shortage of materials, the plentifulness of restrictions, and the inflated cost of building.

The only answer, back in late 1945, was the readily-available "Quonset Hut," the pre-fabricated, semi-cylindrical, all steel building made famous during the war through its general use as an Army and Navy building. So the management set up a 40 by 200 foot Quonset on North Grant Street, stuccoed the front for appearance, and moved in its thriving wholesaling business on the first of March.

Now in use for more than half a year, the building has had sufficient service as office and warehouse to be evaluated by the management.

"The Quonset has been remarkably satisfactory," says E. W. Raffety, the manager, "we have found some advantages, some disadvantages. The curved ceiling and walls are unusual — you have to arrange everything differently than you would in a squared building. The lack of posts through the whole structure provides a great amount of freedom in the movement of supplies and in the arrangement of the floor space. Also, you can bring in heavy, large-bodied trucks and move them about freely except close to the sidewalls. This is helped, too, by the large doors you can have at each end of the building.

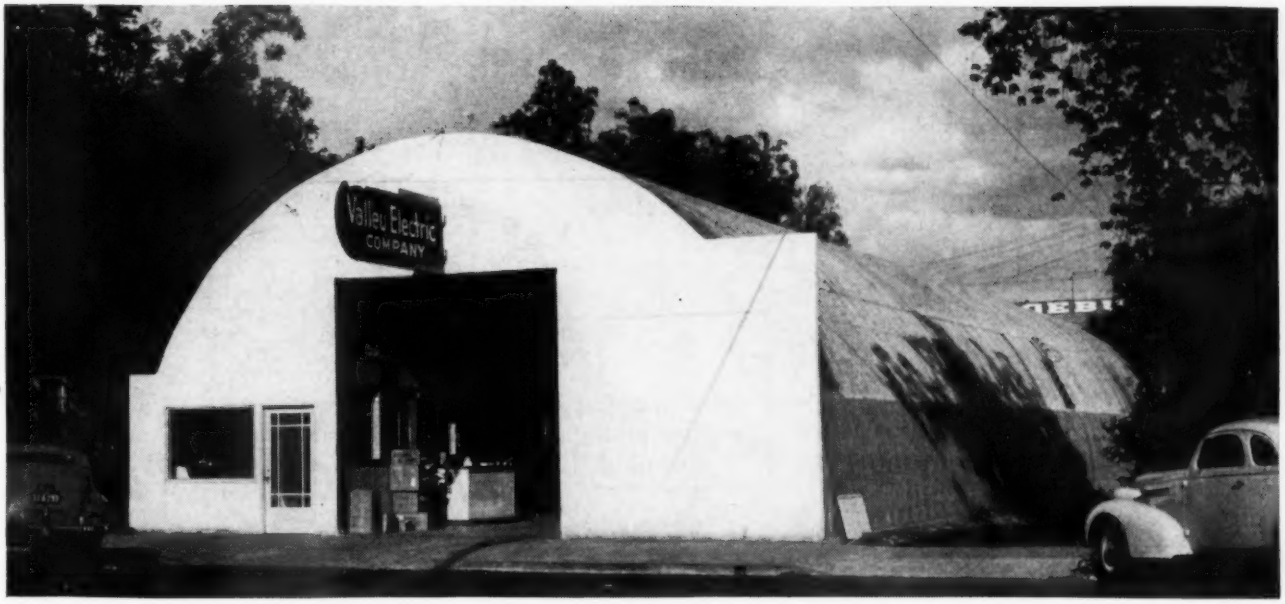
"The shape of the building presents some problems in storage along the sidewalls," Mr. Raffety explained. "You have to bring your conduit or anything else that has reasonable height, out into the room to store it. Unless you bring it 'way out to provide passageway behind it you lose valuable floor space and then when you do, you have to provide independent supports mounted to the floor. We built a special rack in the center of the floor to hold our pipe.

"If we were to set up another Quonset for wholesaling use, first we would build a four-foot concrete or brick wall and then set the hut on it. That would make it possible to store flat against the sidewalls, or to build storage bins or shelves flush to the walls, without having to compensate for the curve, or lose floor space."

From the office and warehouse staff of the Valley Electric Company there were few complaints. One warehouseman said that the building was hard to ventilate during the 100-degree and up temperatures not uncommon in this San Joaquin Valley city. He said that the area in the center of the building,

Except for manager E. W. Raffety and salesman W. J. Quinn Jr., the Quonset-housed gang's all here: left, D. E. Kale, price clerk; LeRoy Judd, salesman; standing, rear, Carl Kates, warehouse and shipping foreman; right, C. R. Ausbrooks.

Because they have to stand away from wall, portable storage bins were made by placing boxes on their sides, back to back and six boxes high. Tag on front gives stock number.



In a 40 by 200 foot Quonset Hut, the Stockton, Calif., branch of Valley Electric Company is operating at present time its electrical wholesaling business with some advantages, some disadvantages, over the conventional building. Note the wide door available for large trucks. There is a similar sized door at the rear.

which would be 100-feet from each door, and where the company stored cable, was uncomfortably hot—"particularly when you're measuring off some #500,000!"

The receiving and shipping men, whose work location would put them within 10 to 15 feet of each door, said that the building was comfortable, that plenty of air was drawn in. All employees joined with management in liking the freedom from pillars, in disliking the problem of storing along the sidewalls.

Within the building, the company partitioned off a space about 15 by 45 feet for use as showroom, order desk, front office, private office and lavatories. One side, the curved wall of the hut, was covered with wall board in a slant which corresponds to the base of the arc. The other three walls are vertical, 2 by 4 framed and wallboard covered. Glass panels give a view of the warehouse. The flat ceiling, about 12 feet high, is supported by the walls, and is not connected to the much higher and curved ceiling.

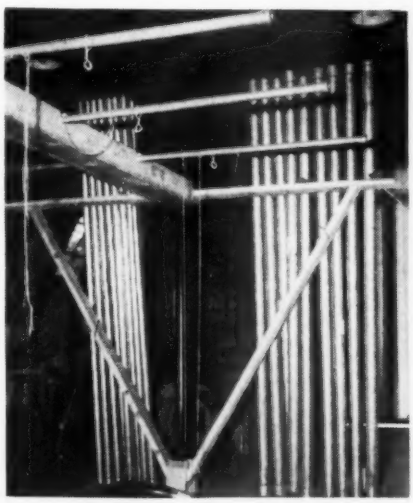
This office space is heated in winter by a natural-gas fired, forced hot air furnace which has been installed in the space above the office ceiling. Ducts take the fan-blown hot air to deflector outlets in the ceiling of the offices and showrooms. The warehouse is not heated.

Using the same ducts is a large fan-blown evaporative cooler which is located outside the building, on the north side. Air drawn through water moistened pads becomes cool air to make working inside the offices comfortable during even the hottest summer days.

Warehouse Arrangement

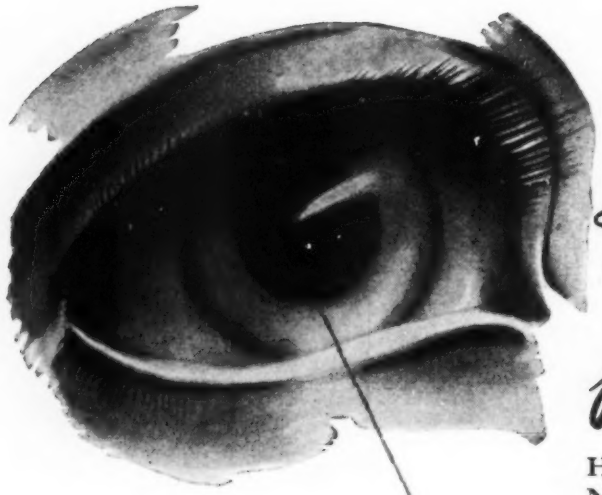
The warehouse is lighted by incandescent lamps in RLM reflectors suspended from the metal roof by steel conduit. The length of the pipe varies so that all lamps hang the same distance from the floor. The wiring is all steel conduit fastened by straps nailed to the steel beams in the fashion of all Quonset construction.

Supplies follow a straight-line through the Valley Electric Company's warehouse space. All deliveries are made to the rear of the building where the receiving desk has been located. From there they go toward the front for storage, further to the front where they are ready to go out. The shipping desk is located at the front door where all pickups as well as loading of the company's own trucks are handled.



All tall items, such as conduit, must be stored and handled away from the sidewalls. Valley Electric built this special rack in the center of the floor.

Curved walls present a problem. Supplies have to be piled with wasted space at the bottom, or the boxes will follow the curve of the structure.



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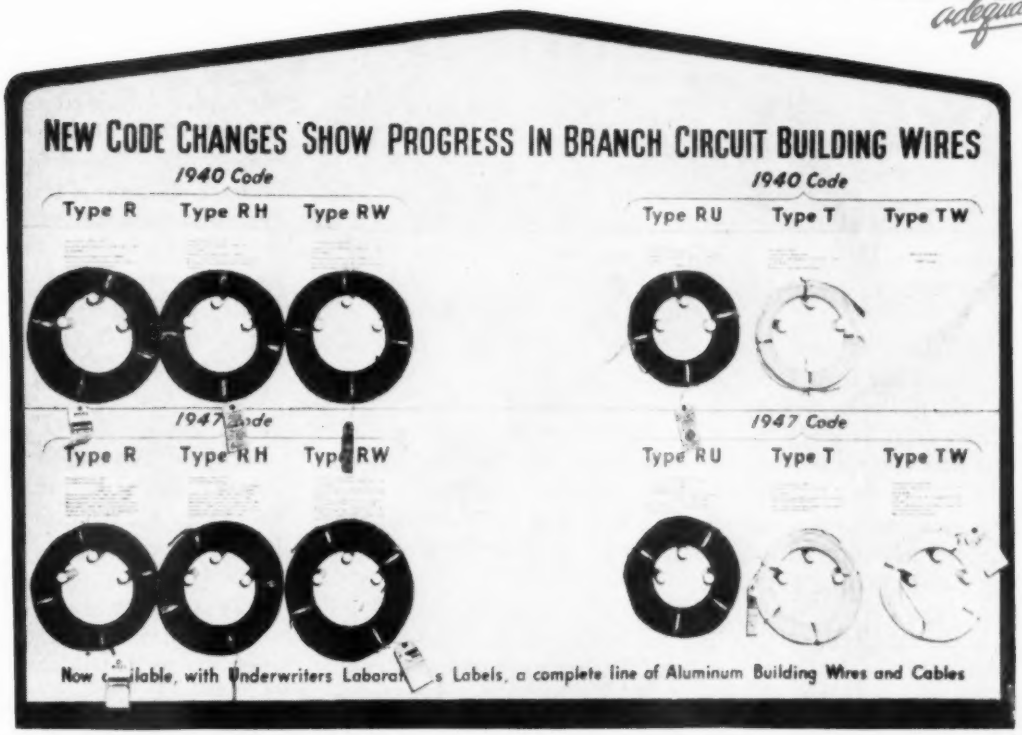


Know The 1947 Code Changes And The Aluminum Wire Story

By Howard H. Weber*

THE 1947 edition of the National Electrical Code will be ready for distribution in the near future. This revision is most important because it is the first published copy to appear since the 1940 edition, and is of further importance because it recognizes many improvements not previously recognized.

Especially noteworthy in application to rewiring for better lighting are those sections which deal with regulations for wiring installation, and particularly those that apply to branch circuit and building wires. To see the changes in proper perspective, a brief resume of the history of these regulations in the National Electrical Code is apropos.

During its infancy the National Electrical Code carried provisions for the installation of one grade of building wire for branch circuit wiring. Over the years this grade became known as "Code Grade" and was designated in the National Electrical Code as Type R wire, meeting the minimum requirements for safe wiring. Its current ratings, as the industry developed, rated the wire for a copper temperature of 50°C. Largely through trial and error, a minimum wall thickness of $\frac{3}{64}$" insulation on a minimum size 14 Awg. wire was set up as the standard, not because of electrical properties but because of required mechanical strength and for protection during installation.

In late years, improvements brought about revisions of the wire specifications providing new wires in branch circuit sizes having a smaller diameter than the characteristic code wire. These wires generally have better performance qualities than the older type and one is resistant to water absorption. Consequently, later editions of the code had many type designations for building wires such as Type R, Type RP, Type RPT, Type RH, Type RHT, Type RW, Type RU, Type SN (now Type T), Type SNW (Type TW).

Due to war conditions some of these wires disappeared entirely and at the close of the war there were six definite types commonly used in branch circuit wiring. These were Type R, Type RH, Type RW, Type RU, Type T (formerly SN) and Type TW (formerly SNW).

The first three types of wire mentioned in the smaller sizes (10, 12 and 14 Awg.) had a $\frac{3}{64}$" wall of rubber and the temperature rating of

the conductor for the Type R and Type RW was 50°C and for the Type RH 75°C.

The last three types of wire, taking into consideration the improvements in fabricating, improvements in aging, reflected in final construction a smaller diameter because of thinner insulation than the conventional type and permitted a rating of 60°C copper temperature.

When the 1940 edition of the code was drafted it was on the basis that the Types RU and SN wire could be used for rewiring only. This briefly was the situation that confronted the electrical committee when they revised the code and for ready reference we refer you to the accompanying illustration which presents pictorially both the 1940 and the new 1947 editions of the National Electrical Code.

The 1947 edition of the National Electrical Code has been further clarified and brought up to date, thus reflecting wartime experience and improvements in processing.

It provides for a Type R code wire, the conductor of which may be rated at a temperature of 60°C. The insulation wall thickness on sizes 14 and 12 is 1/32". On size 10 it is 3/64". The type RH wire is rated at a conductor temperature of 75°C with a wall thickness on sizes 14 and 12 of 1/32" and on size 10 of 3/64". The Type RW has a conductor temperature rating of 60°C and the wall thickness on sizes 14 through 10 Awg. inclusive is 3/64".

In addition Type RU, Type T (formerly SN), and a new Type TW (formerly SNW) have a smaller diameter than the conventional Type R, RH, and RW and are now enlarged in scope so that they are a general purpose type of wire and can be used anywhere that the equivalent Type R is used.

For example, Type RU wire in sizes 14, 12 and 10 with an insulation thickness of 18 mils and in sizes 8 and 6 with an insulation thickness of 25 mils has a conductor temperature rating of 60°C. In addition to being a general use branch circuit wire may also be used in non-metallic sheathed cable or armored cable.

Type T wire, for example, has a conductor temperature rating of 60°C with an insulation wall thickness of 1/32" for sizes 14, 12 and 10 and may be used as a general purpose wire in sizes 14 through 4/0. Sizes larger than 4/0 can only be used in open work.

Type TW wire also has a conductor temperature rating of 60°C. The insulation wall thickness on sizes 14, 12 and 10 is 1/32" and the same limitations apply for the use of Type TW wire as were outlined under Type T. Type TW wire, however, must be a moisture-resistant compound.

The six types of wire mentioned above comprise the types of wire that are now recognized by the National Electrical Code for branch circuit building wire. For feeders and subfeeders, wires are available in Types R, RH, RW and for certain applications, Type T and TW are recognized.

In order to keep the industry in line and to keep all informed, Underwriters' Laboratories published a bulletin stating that the 1946 wires Type R, RH and RW in the old heavier wall constructions could be fabricated and labelled up until April 1, 1946.

The new types R, RH and RW could be labelled after April 1, 1946 but manufacturers did not need to change their production over to the new specifications until November 1.

So that all would know what kind of wire was being received in the industry, tags had to designate the new construction as "1946 Code."

(When Underwriters' Laboratories' bulletin was distributed, it was expected that the new edition of the National Electrical Code would be designated "1946." Due to an unavoidable situation, it was impossible to get the 1946 edition out and the edition that is being published is designated "1947 edition").

It is planned that the 1940 types of wire which might be labelled up until November 1 would be an inventory and could be used after November 1 until the present supply is exhausted.

In order to show the uses of these wires and to compare them we call your attention to Table I.

Aluminum Wire

After V-J day certain post-war shortages of raw materials delayed the production of wires and cables. During 1946 industry suffered from a lack of wire. It was therefore necessary to look for substitutions. Both lead and copper stocks had dwindled so that there was very little available for the wire and cable industry. In the case of Underground cable, many engineers are advocating the use of nonmetallic cable structures in place of the conventional lead sheath. As a typical example of the augmenting of dwindling supplies at least one manufacturer during 1946 introduced insulated building wires and cables having aluminum conductors instead of the conventional copper wires.

While for interior wiring the use of aluminum is new and novel in this country, still it has been used abroad successfully during the war years and here in the United States industry has had wide experience in the use of aluminum as a conductor of electricity for more than fifty years.

Some of the original installations made out of doors dating back to the late 90's are still in operation today and giving trouble-free service. Aluminum busses were used for transmitting electrical power at the Niagara Falls Power Plant back in 1895. Bus construction for use in chemical plants where electrolytic cells are in operation are in wide usage today.

It is noteworthy that as used by electro-platers aluminum busses operate under the most corrosive conditions. The modern installation of aluminum busses for electrical purposes includes steel mills, chemical plants, electro-chemical plants, storage battery rooms, central stations and sub-stations. An early use for aluminum electrically was found in aerial power lines and since 1909 considerable quantities of aluminum cables, steel reinforced (A.C.S.R.) have been used so that more than a million-and-a-half miles are in the air today.

The extensive use of A.C.S.R. is based on the fact that aluminum and steel provide the highest strength for its weight in a cable of any conductor material and pound for pound the aluminum has the highest capacity of common metals for carrying electricity and of course high grade steel has the highest strength. Aluminum and steel in combination (A.C.S.R.) provide a light strong cable especially suitable for long span lines.

In 1909, a notable trolley installation was made in Chicago. The ends of copper cables were soldered to aluminum and there were five alumi-

num-to-aluminum connections made at intermediate points. Recently these connections were opened, the joints were examined and the cable was found in perfect condition. The connections were re-soldered and the cable was put back in service.

It has been stated that the most corrosive atmospheres occur along the ocean-front properties. As an example of such conditions where aluminum conductors are withstanding the ravages of salt air and weather, the installation of five miles of aluminum conductors installed in 1899 on an island in Long Island Sound are still in service. Therefore the practicability and safety in the use of aluminum as a conductor of electricity has been demonstrated and proven.

It is noteworthy that the National Electrical Code permits the use of aluminum conductors in building wire. Underwriters' Laboratories made extensive tests and now a complete line of building wire is being manufactured complying with the Underwriters' Laboratories' standards and each coil and the tags on every reel have Underwriters' labels attached thereto.

Today several manufacturers are producing aluminum building wire and cable paralleling their present copper wire line. Already the use of aluminum cables during the emergency when there was a shortage of raw material, has gone a long way in removing one obstacle in the construction program.

In sizes No. 6 to No. 12 Awg. Type RU aluminum wires with equivalent resistance to Type R copper wires have larger gauge size conductors and increased current rating but a smaller overall diameter. The smaller diameter of the Type RU aluminum as compared with Type R copper is due to the type of insulation that is

TABLE I

NEW CODE CHANGES SHOW PROGRESS IN BRANCH CIRCUIT WIRING

		R	RH	RW	RU	T (Formerly SN)	TW
Maximum Operating Temperature	1940	60 C	75 C	60 C	60 C	60 C	
	1947	60 C	75 C	60 C	60 C	60 C	60 C
Insulation Wall Thickness	1940	3/64"—#14, 12, 10 AWG 4/64"—#8—2 AWG 5/64"—#1—4/0 AWG	3/64"—#14, 12, 10 AWG 4/64"—#8—2 AWG 5/64"—#1—4/0 AWG	3/64"—#14, 12, 10 AWG 4/64"—#8—2 AWG 5/64"—#1—4/0 AWG	18 Mils (1.15/64) #14, 12, 10 AWG	2/64"—#14, 12, 10 AWG 3/64"—#8 AWG 4/64"—#6—2 AWG 5/64"—#1—4/0 AWG	
	1947	2/64"—#14, 12 AWG 3/64"—#10 AWG 4/64"—#8—2 AWG 5/64"—#1—4/0 AWG	2/64"—#14, 12 AWG 3/64"—#10 AWG 4/64"—#8—2 AWG 5/64"—#1—4/0 AWG	3/64"—#14, 12, 10 AWG 4/64"—#8—2 AWG 5/64"—#1—4/0 AWG	18 Mils (1.15/64) #14, 12, 10 AWG 25 Mils (1.6/64) #8, 6 AWG	2/64"—#14, 12, 10 AWG 3/64"—#8 AWG 4/64"—#6—2 AWG 5/64"—#1—4/0 AWG	2/64"—#14, 12, 10 AWG 3/64"—#8 AWG 4/64"—#6—2 AWG 5/64"—#1—4/0 AWG
Uses (Under National Electrical Code)	1940	General Use	General Use	General Use or in Wet Locations	Rewiring Only	Rewiring Only	
	1947	General Use	General Use	General Use or in Wet Locations	General Use May be used in Non-Metallic Sheathed Cable	#14—4/0 AWG General #14—2000 MCM Open Work	#14—4/0 AWG General #14—2000 MCM Open Work
Sizes (Under National Electrical Code)	1940	#14—2000 MCM	#14—2000 MCM	#14—2000 MCM	#14, 12, 10 AWG	#14—4/0 AWG	
	1947	#14—2000 MCM	#14—2000 MCM	#14—2000 MCM	Now Approved in Sizes #14—6 AWG	#14—4/0 AWG General #14—2000 MCM Open Work	#14—4/0 AWG General #14—2000 MCM Open Work

Current Carrying Capacity (In Amperes)

1940																	
Size	Conduit*	Open Wiring	Size	Conduit*	Open Wiring	Size	Conduit*	Open Wiring	Size	Conduit*	Open Wiring	Size	Conduit*	Open Wiring	Size	Conduit*	Open Wiring
14	15	20	14	22	29	14	15		14	18		14	18				
12	20	26	12	27	37	12	20		12	23		12	23				
10	25	35	10	37	50	10	25		10	31		10	31				
8	35	46	8	49	69	8	35					8	41				
6	45	65	6	65	94	6	45					6	54				
4	60	87	4	86	125	4	60					4	72				
2	80	118	2	115	170	2	80					2	96				

1947																	
14	15	20	14	15	20	14	15	20	14	15	20	14	15	20	14	15	20
12	20	25	12	20	25	12	20	25	12	20	25	12	20	25	12	20	25
10	30	40	10	30	40	10	30	40	10	30	40	10	30	40	10	30	40
8	40	55	8	45	65	8	40	55	8	40	55	8	40	55	8	40	55
6	55	80	6	65	95	6	55	80	6	55	80	6	55	80	6	55	80
4	70	105	4	85	125	4	70	105				4	70	105	4	70	105
2	95	140	2	115	170	2	95	140				2	95	140	2	95	140

*Not more than 3 conductors in conduit, raceway or cable. For more than three conductors in conduit, raceway or cable, reduce current carrying capacity in accordance with 1946 Code.

NOTE: *According to Underwriters' Laboratories; 1946 Code—R, RH, and RW—may be labeled after April 1, 1946. Manufacturers need not produce until November 1. When production does start, Underwriters' labels must be applied and tags must be marked: "1946 Code."*
1940 Code—R, RH, RW—may be labeled until November 1, 1946. Stocks in inventory after November 1 may be used until supply is exhausted.

"LVR" ENGINEERING makes it easier to sell ENGINEERED LIGHTING

✻ FOR STORE INTERIORS

Albrecht's Cut-Rate Drug Store in Cleveland uses Spero "LVR" Luminaires for efficient interior lighting.

Spero "LVR" meets the three basic requirements for good "engineered lighting"— high efficiency, low maintenance, and smart appearance. Light from the 40 W tubes is shielded by evenly spaced louvres. Individual reflectors, removable for easy maintenance, provide a reflecting surface for each tube. Reflecting surfaces are finished in "Plastox" white (86% Reflection factor).

•

Starters can be replaced without disturbing either the tubes or the hinged louvres. Relamping is done from the top, on pendant-mounted units, and by swinging down the louvre on surface mounted units. Plastic side panels add to the appearance and utility of this fixture. Available with instant-start ballasts.

•

Write for complete engineering data.

Spero also manufactures REFLECTORS, FLOODLIGHTS, VAPOR PROOF UNITS, and various MATERIALS FOR ELECTRICAL CONSTRUCTION. Write for Bulletin No. 10.

A TYPICAL EXAMPLE OF "FUNCTIONAL" LIGHTING

FACTS and FIGURES

Area—3000 square feet. Height of ceiling—12 feet.

Color Scheme—Ceiling and walls—buff colored acoustical board.

Fixtures—43 Spero "LVR-448" Fluorescent Luminaires. 3 PAR 38 Spot Units.

Layout—Continuous rows follow store arrangement to provide desired glare-free intensity on counters and lead customers to store displays. Spotlights highlight island displays.

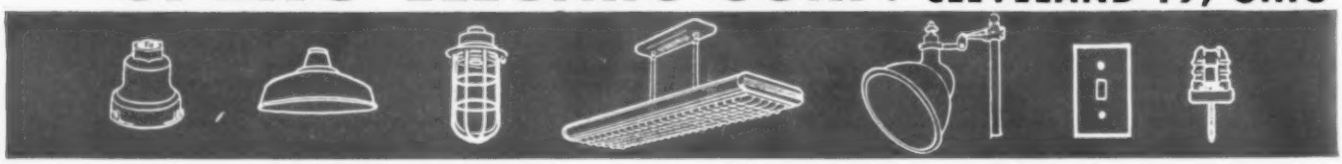
Result—Average Footcandles on counters 36; on displays 87.

Engineered and installed by the Reserve Electric Company, fixtures sold through the Frankelite Company.

✻ ***One of a series. Other advertisements will show "LVR" "engineered lighting" in offices, institutions, etc.***

Look for another Spero advertisement on page 139

The SPERO ELECTRIC CORP. 18222 LANKEN AVE. CLEVELAND 19, OHIO



applied by the dip process. Hence, the same number of No. 12 Type RU aluminum wires can be installed in the same conduits as No. 14 Type R wires. The same relationship applies to other branch circuit sizes as shown in the following tabulation of conduit sizes:

SIZE AWG (Type RU)	NUMBER OF CONDUCTORS IN ONE CONDUIT								
	1	2	3	4	5	6	7	8	9
12	½	½	½	½	¾	¾	1	1	1
10	½	½	½	¾	¾	1	1	1	1¼
8	½	¾	¾	¾	1	1	1	1¼	1¼
6	½	¾	¾	1	1¼	1¼	1¼	1½	1½

For equal current-carrying capacity, Type RH aluminum wires and cables may be used instead of copper with Type R insulation in the same gauge size and being of the same overall diameter the aluminum may be used in the same size conduits as ordinary Type R copper wire. This is based on

COPPER VS. ALUMINUM WIRE

The Manufacturers' Score on Feb. 1st, 1947

Copper Only	**17**
Aluminum	**4**
On the Fence	**2**

COPPER WIRE EXCLUSIVELY

1. We expect to continue concentrating manufacturing and sales effort on insulated wires with copper conductor.

2. We do not manufacture aluminum wire of any type.

3. We have done some research work with aluminum conductor, but at the present time we do not know whether we will go into aluminum wire at any time in the near future.

4. We have not made any aluminum wire and have no immediate plans to do so. Of course, if the copper supply situation gets worse, we may be forced to go to aluminum.

5. The electrical wires and cables which we manufacture are not the type in which aluminum wire would be efficient.

6. Our company is not fabricating aluminum wire.

7. We are not manufacturing aluminum building wire—but we are watching developments.

8. We make no aluminum wire or cable.

9. We are not manufacturing aluminum wire at present and do not feel we will do so in future.

10. No aluminum wire.

11. We do not manufacture aluminum wire.

12. We do not produce aluminum building wire.

13. We are not using aluminum for building wire conductor and have no definite plans for its production.

14. At present time we have no plans for furnishing aluminum building wire.

15. We do not manufacture any sizes of aluminum wire and do not contemplate doing so.

16. We do not make aluminum wire.

17. We have no plans for using aluminum conductor for any of our insulated wire.

WILL SUPPLY ALUMINUM WIRE ALSO

1. Will furnish aluminum covered wires in armored cable that has been approved by the Underwriters.

2. We will manufacture and merchandise insulated wires with aluminum conductor in all approved sizes.

3. We are manufacturing sizes 14 and 12. Larger sizes by the middle of the year.

4. Relative to aluminum building wire, we are now making sizes 12 awg and larger and are stocking sizes 6 to 500,000 cm inclusive, with type RH heat resisting rubber insulation. The 75 degree centigrade permissible copper temperature rating versus 60 degrees for type R code insulation, gives the aluminum wire the same current carrying capacity as copper conductor with type R insulation, and the price of the aluminum RH is somewhat lower.

We find great interest among wholesalers and electrical contractors with respect to aluminum building wire because of the present shortage of copper which apparently will prevail all year, together with the inherent advantages of aluminum which will probably carry it into use as a standard along with copper in the future.

We are finding wide acceptance of aluminum building wire in New York State,—not N. Y. City,—also in Middle West, the South and the Pacific Coast.

In some places Underwriters' authorities not yet fully sold on the idea as Underwriters' Laboratories letter by Mr. A. R. Small of last August in which the use of aluminum building wire was approved, expressed some apprehension as to corrosion, splicing and terminating, although Mr. Small indicated full Headquarters approval if aluminum was acceptable to local authorities.

There is some call for service entrance cable with aluminum conductors and RH heat resisting rubber insulation. On this as well as building wire the question of voltage drop must be taken into consideration where there is any considerable length of run as entrance cable between farm buildings for example.

ON THE FENCE

1. We are now testing aluminum conductor wire and expect to be ready for production *if that becomes necessary* in a few months.

2. Unable to supply any aluminum wire at present. Our company has been active in securing code approval and has been conducting experiments for several years in drawing and insulating but no decision reached as yet as to whether we will produce aluminum wire very soon.

The accompanying article on the subject of the 1947 Electrical Code and Aluminum Wire was prepared at the urgent request of ELECTRICAL WHOLESALING.

It was felt that salesmen everywhere, who call on buyers of electrical wiring supplies, could discuss the code changes and the approval of aluminum conductor in building wires more intelligently and with complete fairness, if the facts were presented fairly and without bias.

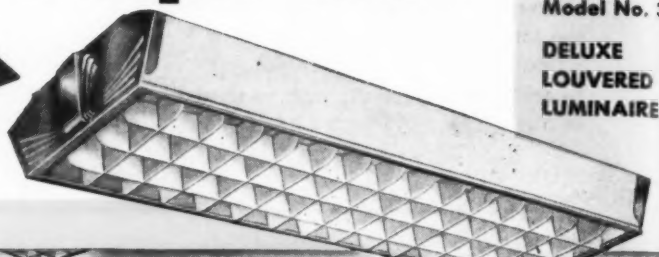
Mr. Weber was induced to prepare the material not only because of his intimate personal knowledge of the general subject but particularly because, in his position he had extraordinary opportunity to study the pros and cons of the subject.

To provide its readers with a measure of existing interest in the subject of aluminum wire among manufacturers of insulated wire, ELECTRICAL WHOLESALING sent out a telegraphic inquiry with the results herein reported.

The EDITOR

Super Light for a Super Mart!

by... MITCHELL



Model No. 3011
DELUXE LOUVERED LUMINAIRE

BEFORE—
The Food City Market, huge Supermart in Pittsburgh, Pa., as it appeared before re-lighting. Average overall illumination, only 5 foot-candles by actual measurement.

AFTER—
Here's the same Food City Market, "sales-activated" by MITCHELL Fluorescent Lighting. 85 foot-candles average maintained! Achieved by MITCHELL DeLuxe Louvered Luminaires No. 3011 and No. 3009 in continuous row mount.

Two different stores? No—it's the same place—but the attractive, sales-inviting establishment pictured at the right was created by a MITCHELL Fluorescent Lighting installation that changed the average foot-candle reading from only 5 to a full 85! Every bit of this new abundant high-level illumination provides glareless, even light over the entire store area—superior light that creates a "selling" atmosphere.

Customers now find the products they want quickly and easily—they *buy more* because they *see more* to buy. Salespeople work with less strain and fewer errors—for bigger sales and profits. Here is "sales-engineered" lighting by MITCHELL—from every angle, the Better Light for Better Business . . .

Installations like these build tremendous user acceptance for MITCHELL Lighting—mean better business for the wholesaler. MITCHELL sales are package transactions—trouble-free volume business. MITCHELL installations are easy, smooth jobs for the contractor—time-saving, profitable business...

Mitchell Manufacturing Company
2525 CLYBOURN AVENUE, CHICAGO 14, ILLINOIS
Far West: *Complete Modern Plant and Sales Office at Los Angeles Serves the Entire Pacific Coast Area*
1019 NORTH MADISON AVENUE, LOS ANGELES 27, CALIFORNIA

MITCHELL *Better Light for Better Business*

Makers of Commercial and Industrial Fluorescent Lighting Equipment Store Window Lighting • Spotlights and Floodlights • Desk Lamps • Portable Floor and Table Lamps • Bed Lamps • Ultraviolet and Infrared Health Lamps • Residential Lighting Specialties . . . Rad-i-Air Germicidal Units (made by Tru-Air Ultraviolet Products Co., Los Angeles)

the fact that Type RH insulation permits approximately 19 percent greater carrying capacity than Type R insulation, and offsets the Code rating for aluminum having 84 percent of the current carrying capacity of copper of the same size and kind of insulation.

For long runs, and in cases where voltage drop need be considered, it is rarely necessary to increase the conductor size when aluminum is used. For the same voltage drop when carrying the same current the following tabulation provides a useful guide for alternating current circuits:

COMPARATIVE LENGTH OF CIRCUIT SAME CURRENT AND EQUAL VOLTAGE DROP

SIZE OF CONDUCTOR	Aluminum	Copper
1,000,000 CM	90%	100%
500,000	80%	100%
4/0 AWG	68%	100%
1/0	65%	100%
6 and smaller	64%	100%

In considering the above, it should be remembered that reactance remains constant for a given conductor size in either aluminum or copper. Since circuits seldom carry full rated current, it is rarely necessary to use a larger size of aluminum conductor because of voltage drop.

Due to the shortage of cotton the Underwriters' Laboratories has recognized the use of a Neoprene covering on 600 volt wires in place of the fibrous covering as an emergency alternate construction for cotton. In this connection there has been a considerable experience and a very satisfactory performance of such coverings as applied to the jackets of flexible cords such as Type S and SJ; also on the use of other special wires and cables manufactured for the War Department and widely used by the Army and Navy.

Size for size, aluminum has 84 percent of the current carrying capacity of copper with the same kind of insulation. (See National Electrical Code, 1940 edition Section 3107. See Section 3106 of the 1947 edition).

For long circuits where consideration is given to voltage drop, aluminum has the same resistance as copper of two gauge sizes smaller. Typifying this, No. 12 aluminum has 2.68 ohms resistance per 1000 feet whereas No. 14 Awg. copper wire has 2.68 ohms resistance per 1000 feet. Similarly this relationship holds on all sizes.

When a larger gauge size of aluminum wire is used to obtain low resistance and voltage drop, the larger diameter of the aluminum conductors permits 12 percent larger current carrying capacity. Below is a table showing the electrical and physical properties for the same gauge size:

	Aluminum	Copper
Diameter	100%	100%
Cross Sectional Area	100%	100%
Weight (for equal length)	100%	100%
Electrical Conductivity % of international Annealed Copper Standard	61%	97%
Electrical Resistance (for equal length)	159%	100%
Current Carrying Capacity	84%	100%

ELECTRICAL AND PHYSICAL PROPERTIES FOR EQUAL RESISTANCE (Same Length)

	Aluminum	Copper
Diameter	126%	100%
Cross Sectional Area	159%	100%
Weight (for equal length)	100%	206%
Electrical Resistance (for equal length)	100%	100%
Current Carrying Capacity	112%	100%

The flexibility and tensile strength of aluminum building wire is similar to that of copper. During the war with the increased production in the aircraft industry, wide experience was obtained with aluminum aircraft wires. In fact a definite advantage in favor of the use of aluminum is that stretch and elongation resulting from pulling into conduit is much less than copper, and can be limited to one or two percent. Aluminum wires are light in weight and the larger the size the greater the advantage in favor of aluminum.

A typical case is cited in reference to 500,000 CM aluminum cable, Type RH insulation (786 lb. per 1000 feet) weighing less than 4/0 copper (835 lb. per 1000 feet). This is advantageous for vertical risers where the stress (lb. per square inch) on aluminum risers is approximately half that for copper risers. It means that an aluminum riser may be safely self-supporting for twice the vertical height of the copper riser.

Aluminum to aluminum connections can be made or copper to aluminum connections can be made. Connections and terminals for aluminum conductors are made in the same manner as with copper conductors. Solid aluminum wires are readily secured under the terminal screws of wiring devices. Compression and indented terminals have been widely used for both large and small aluminum conductors in the aircraft industry where excessive vibration is encountered and where sudden changes in temperature are found.

In branch circuit wiring, fixture type splicing connectors ("wire nuts") are useful for joining two or more small wires in an outlet box. The products of several manufacturers are listed by Underwriters' Laboratories. Pressure type terminal connectors for both large and small conductors are available from a number of manufacturers whose products are also listed by Underwriters' Laboratories.

The same techniques employed in making soldered joints in copper wire may be used in soldering aluminum wire, such as a small alcohol lamp, torch, solder rod, dip ladle and soldering iron. Special fluxes and special high grade solder is available for making these joints.

Solder fluxes accomplish the same purpose for aluminum as for copper in that they remove the oxide and thus facilitate making the soldered joint. The temperature at which aluminum is soldered is comparable to the temperature used in soldering copper with ordinary electricians' solder.

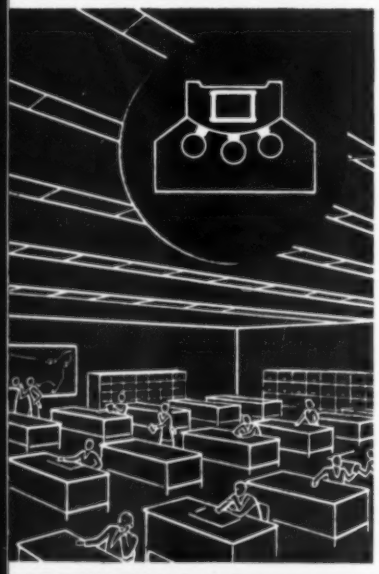
The experience in the use of aluminum building wires and cables is still in its infancy. While the manufacturer who has advocated the use of aluminum at this time is using it to augment his copper wire line and has made no claims about its use permanently in industry, it is a fact that the economics in favor of the use of aluminum have led many people to the conclusion that aluminum as an electrical conductor for branch circuit wiring will continue.

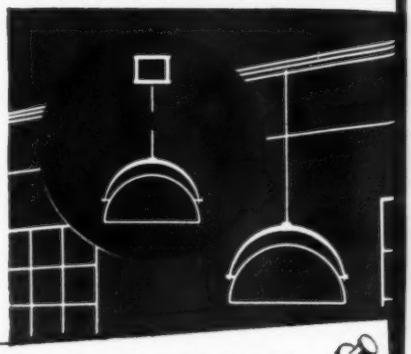
At the same base price for aluminum and copper (which does not exist today) the fact that aluminum weights ⅓ of copper would indicate that much more aluminum footage per pound would be produced than with copper and therefore the economics would favor the use of aluminum. At the present time aluminum wires are somewhat cheaper than copper wires which they substitute.

**Howard H. Weber is Sales Manager of the Wire and Cable Department of United States Rubber Company.*

SURFACEDUCT

Lighting Applications





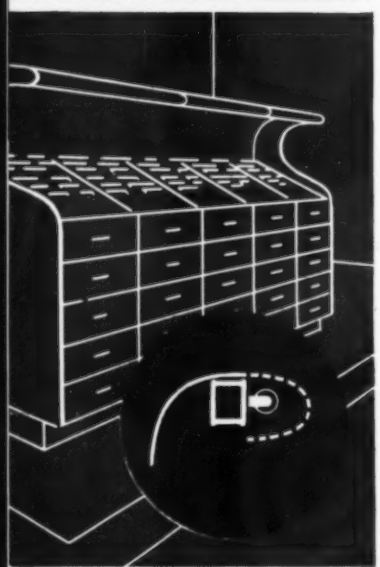
Versatile NE *Surfaceduct* offers the lighting engineer a 2-piece surface raceway unsurpassed for convenience, sturdiness, circuit roominess and accessibility. It is readily adapted to any kind of an installation or lighting fixture. May be used in either exposed or concealed locations. Unique bridge locks capping securely in place yet permits easy removal for future service additions. Eight device covers accommodate over 300 manufacturers devices. Twelve simple fittings meet all job requirements. Over-all dimensions: 1⅝" x 2⅛". Capacity *with devices installed:* Ten #10, #12 or #14 wires. Designed for loads up to 60 amp. Write for complete catalog.

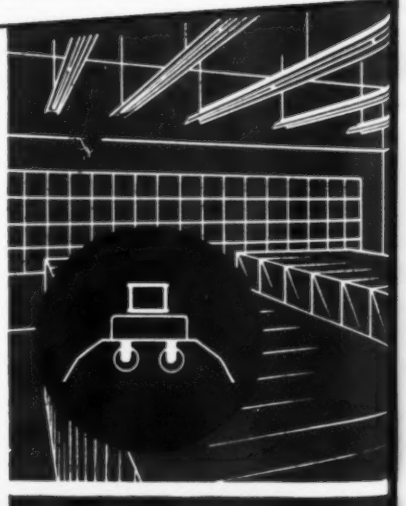
To all National Electric Distributors:

Ideas like these help YOU sell more NE *Surfaceduct*. This advertisement, appearing in January and February magazines, is reaching more than 100,000 readers—*Electrical Contractors, Architects, Electrical Engineers, and Public Utility Lighting Salesmen.*

We'll gladly send you reprints of this advertisement, (without this label), for your own distribution. Write: National Electric Products Corporation, Pittsburgh 30, Pa.

EVERYTHING IN WIRING POINTS TO NE





Leading electrical wholesalers have stocks for immediate delivery.

National Electric Products Corporation
Pittsburgh 30, Pa.

NATIONAL ELECTRIC PRODUCTS
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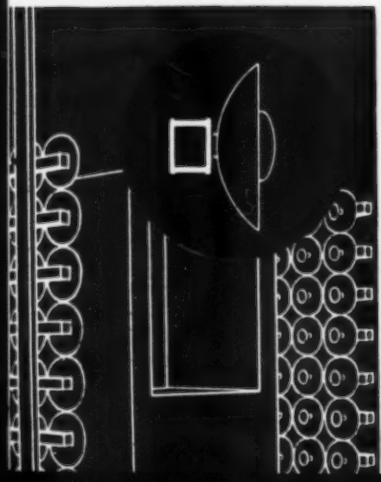
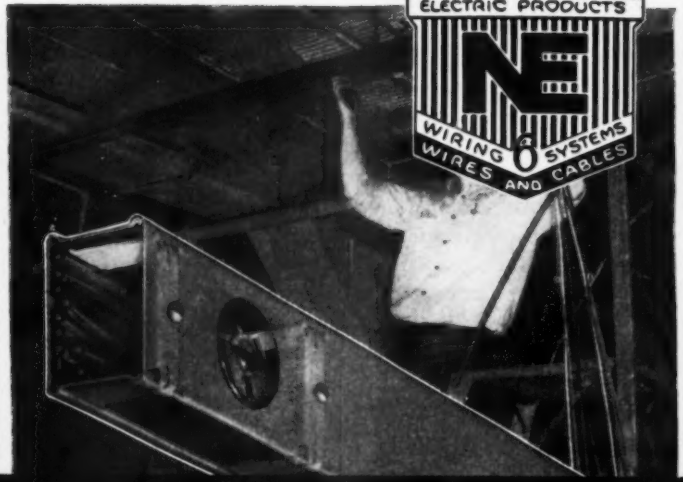
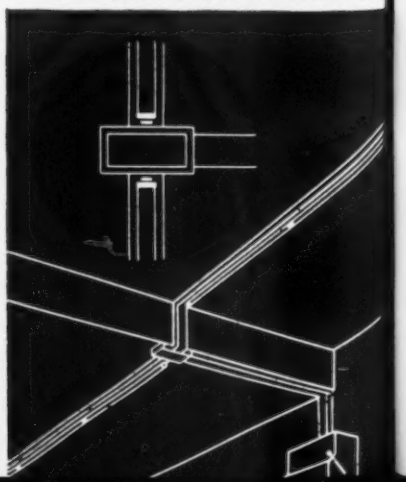
WIRING & SYSTEMS
WIRES AND CABLES







Cooperation With Plant Engineer Sold On-The-Bias Lighting Job

By Hoyt O. Smith.
Vice President
The Hardware & Supply Company, Akron, Ohio

William A. Gardner

Harold Lamb

BILL Gardner, salesman for the Hardware & Supply Co. of Akron, Ohio, has called on the Adamson United Co. for a great many years and his knowledge of their requirements of lighting and many other electrical items placed him in a position to be of very material help in planning a special drafting room lighting job which now is completed. Harold Lamb is electrical engineer for this company and of course he worked closely with Mr. Gardner.

Plans for this drafting room fluorescent installation were started shortly after fluorescent units began to appear on the market but nothing was then available which, so it was felt, would do the job satisfactorily. Eventually, Mr. Gardner, thoroughly familiar with the requirements for this drafting room, presented the Grenadier unit to Mr. Lamb who after a considerable period approved it and the job was installed.

The problem in this particular job was to determine the mounting distances from the side walls as well as the ceiling, and after a survey was completed of the requirements, the fixtures were mounted with the rows running on a 45° angle diagonally across the ceiling to within two feet of the side walls of the drafting room.

The tables are arranged in the usual manner. With the angle mounting of the fixtures, shadows normally cast by the tee square and triangle are completely eliminated. As the fixtures are mounted on close centers, body and pencil shadows do not exist. A maintained uniform 55 footcandles illumination is provided on all 20 drafting tables.

The Adamson United Company is known to the industries it serves, as an all-basic manufacturer of production equipment for rubber, plastic and plywood plants. An interesting item of its manufacture, going back to the war for a moment, was a brake testing machine for testing bomber brakes. The fly wheel alone weighed 150 tons and the entire machine was considerably in excess of 400 tons, probably the largest machine of its kind that has ever been built.

With fluorescent fixtures running in rows at an angle of 45 degrees, a level of 55 footcandles is provided on drafting tables at the Adamson United Co., Akron, Ohio. Mounting on close centers eliminates body and pencil shadows. F. W. Wakefield Brass Co. photo.

LOOK TO WARE HI-LAG FUSE FOR PRODUCTION PROGRESS

WARE HI-LAG *Renewable* FUSES

Only 3 PARTS

To Handle In Renewing Link

KNIFE-BLADE
250 VOLTS
600 VOLTS
70 to 600 AMPS.

FERRULE
250 VOLTS
600 VOLTS
3 to 60 AMPS.

APPROVED BY UNDERWRITERS LABORATORIES

WARE HI-LAG FUSE Construction establishes a top standard for rugged simplicity. There are only *3 PARTS* to handle to replace blown link:—the Fibre Case—the Knife-Blade Assembly—the Closure Ring. Only 1 wrench needed to loosen nuts and slip out blown link. Assembly can be inserted either end in Case.

Other exclusive WARE HI-LAG features which add to their cool operation—low resistance—dependability and long life service are, Large Double Contact Areas between Link and Blades—Steel Arched Lock Washers—Heavy Double Fibre Bridge—Gas Vents—Lateral Expansion Links.

Start using WARE HI-LAG Fuses today! Make them standard equipment for greatest satisfaction and economy. Investigate Now!

Write for Brochure giving details of all the COOL FACTS, sizes and prices.

WARE Brothers 4450 W. LAKE ST.·· CHICAGO 24, ILL.

Radar—Electronic Detective in War Safeguards Ships in Peacetime

"Eye" of Marine radar equipment is the antenna shown mounted on top of the bridge of an ocean-going commercial tanker. The revolving antenna sweeps the area for many miles around the ship instantly transmitting indications of concealed dangers to the bridge.

WAR-TESTED and proved, radar can now provide protection and navigation aid of unfailing accuracy to merchant ships on the seven seas.

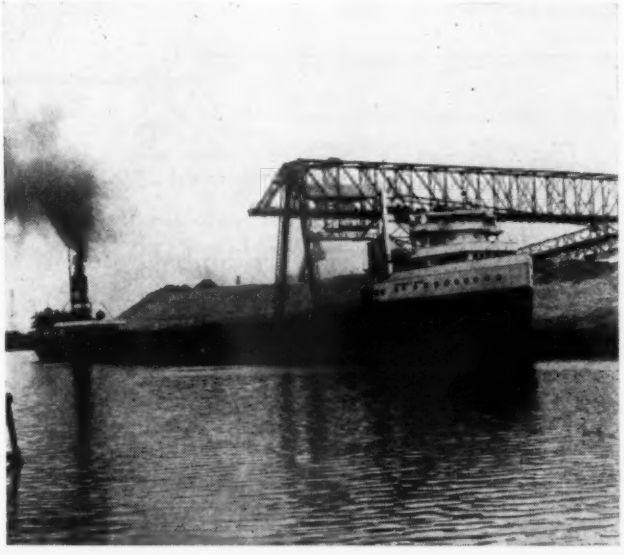
Operating under the most adverse conditions, this commercial application of radar serves as a 24-hour "lookout" that can really pay its own way, regardless of the type of service, since it takes only a comparatively small saving in the running time of a ship to cover the cost of equipment and installation.

Recently the S. S. AMERICAN MARINER a 560-foot tanker operated by the Atlantic Refining Co. completed its first run equipped with Raytheon's Mariners Pathfinder. This first run of an ocean-going commercial tanker equipped with radar was an unqualified success.

One incident during the run furnished ample proof of radar's value in navigation. Off Cape Hatteras a flashing buoy marking a wreck failed to operate. The radar picked up the wreck while the tanker was many miles away and gave accurate positions until the ship was well past the danger spot.

Since operating cost of the tanker averages $2400 a day the use of radar as a navigational aid allows it, or any other ship so-equipped, to maintain its running schedule and eliminates the loss of time and money caused by running at reduced speeds.

With such protective equipment available marine safety reaches a new high and benefits in peacetime from that which was an indispensable factor in winning peace.



On the Great Lakes, exhaustive tests are now under way with radar equipment installed on freighters. Here on the self-unloader bulk freighter GEORGE F. RAND, the revolving antenna is placed on top of the unloading mast.

Radar indicator is located in the wheel house of the freighter close to the helm where it is always closely under the observation of the men on duty. Marine radar is extremely compact and easy to operate. All photos from Raytheon.

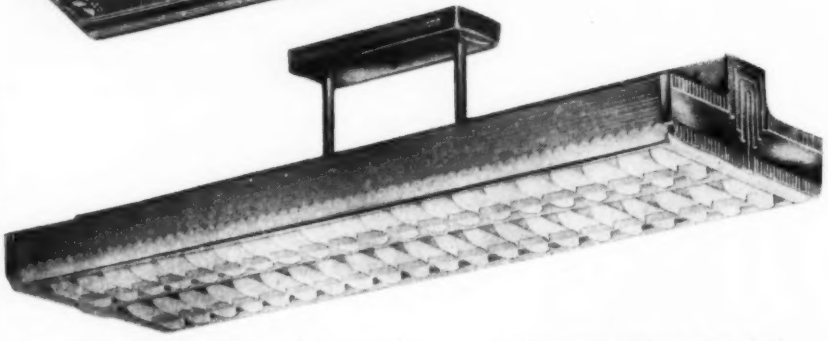
Designed by Artists

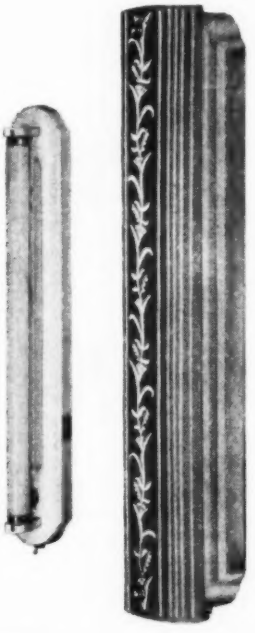
with an eye toward beauty

FEMCO

THE DECORATOR (left)

A distinctive fixture, covered with artistically etched glass and with ends finished in rich cream ivory horizontally striped in chromium . . . truly will make any home today as modern as tomorrow. In either two or three tube 20 watt sizes.





THE ARISTOCRAT (above)

Fitted with handsome silver finished ends, white enamel louvres and Corning Alba-Lite glass sides, the Aristocrat is ideal for store, office or specialty shop. Available in four-40 watt or four 20-watt tube styles.

THE STUART (right)

A beautiful and practical bracket, available with or without FEMCO's exclusively designed etched glass cover. No welded parts or harsh angular fittings to mar its streamlined contour. Furnished in white or chrome, in 14 or 15 watt styles.

Here are three of FEMCO's complete line of "eye appeal" fixtures. Quality and lighting efficiency have in no way been sacrificed to combine clean flowing lines and artistically designed details which typify a product established as a leader in the field.

FLUORESCENT EQUIPMENT & MFG. CO.
2570 Superior Avenue . . . Cleveland (14), Ohio

LITHONIA LIGHTING PRODUCTS CO., INC.
Lithonia, Georgia

FEMCO AFFILIATES

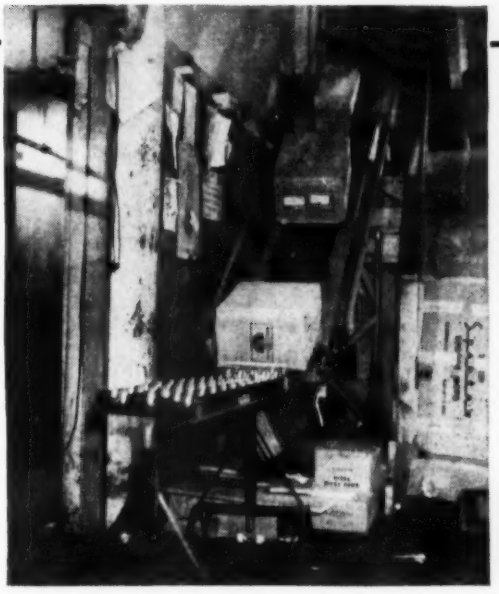
Electrical Wholesaling's CAMERA CLICKS

at Chicago, Illinois

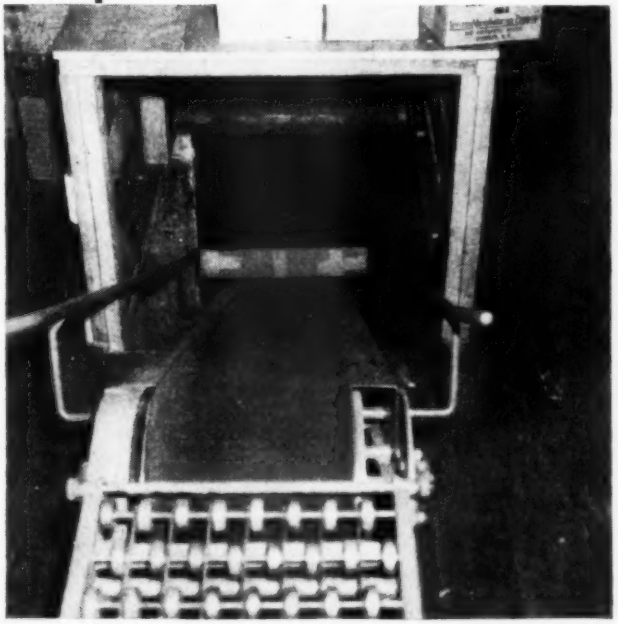
Streamlining warehousing facilities can greatly speed up the handling of stock. In setting up their organization to better handle the increasing amount of stock being received, the Dobkin Electrical Supply Company of Chicago, Illinois recently installed two belt conveyors – one from the first floor (receiving and shipping department) to the basement warehouse and another from the first floor to the second floor warehouse.

This installation has proved to be a time saving device as well as a saving of manpower. Where it ordinarily would take several men to drag 65 pound coils of BX to the basement warehouse, it now takes only two men to handle the job. One places the coils on the conveyor and the other drops them in the trucks for delivery to the bins.

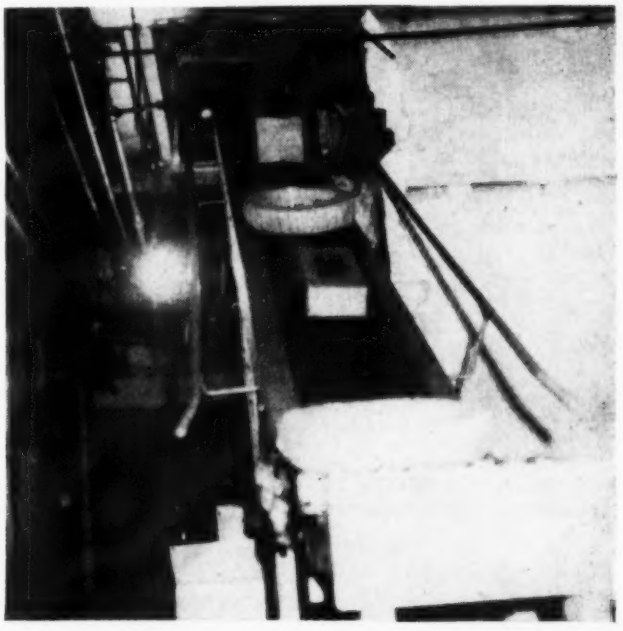
Carrying cartons of lamps, lighting fixtures, etc., by hand to the second floor warehouse for storage has always been a slow and tedious task but now such items can be conveniently loaded from a truck on the receiving floor onto the conveyor and in turn quickly carried to a truck on the second floor for storage on the racks.



By installing a belt conveyor from the first floor (receiving and shipping room) to the basement warehouse, the Dobkin Electrical Supply Company can now easily, quickly and conveniently move incoming merchandise to warehouse for storage.



This belt conveyor was installed to deliver cartons of lamps, lighting fixtures, etc., from the receiving room to the second floor for storage.



Another view of the same belt conveyor that was installed between the receiving room and basement warehouse shows merchandise being conveyed to basement.

News Notes From N.E.W.A.

By Alfred Byers, *Secretary*
National Electrical Wholesalers Association

INDUSTRIAL ELECTRONICS COMMITTEE MEETS

Some interesting information on this relatively new field is to be developed for N.E.W.A. members by this Committee. Mr. H. P. Litchfield, the Committee's Chairman announced, after a meeting of the Committee last month, that, among other things, an intensive study is to be conducted by the members in preparation for the release of a special report to the Association. He said the report would be aimed at furnishing N.E.W.A. members with factual data intended to be useful to them in determining their opportunities in this field and practical suggestions on how to take advantage of them.

OUTSIDE CONSTRUCTION MATERIALS COMMITTEE AND WIRING DEVICES COMMITTEE MEET AT CHICAGO

Last month, at Chicago, meetings were held by the Outside Construction Materials Committee, L. W. Taylor, Chairman, and the Wiring Devices Committee, Harry D. Roseth, Chairman.

Discussions centered around the problems in these fields which face wholesalers operating under post-war conditions. Constructive reports have been prepared for the Association's membership in the Apparatus and Supplies Division informing them of the facts developed at these meetings.

PROGRAM COMMITTEE BUSY ON ATLANTIC CITY CONVENTION

N.E.W.A.'s Program Committee, D. A. Salsbury, Chairman, held a meeting last month to consider and tentatively set up the program for the Association's 38th Annual Convention to take place at Atlantic City, New Jersey, May 4-8. Diligent work is being done by this Committee and its program will provide a Convention of unique features and of great consequence to the industry's progress.

Announcements, to be issued by Managing Director Chas. G. Pyle at an early date will indicate the very practical approach this Convention is to make on the current national problems and opportunities. Separate sessions will be held for members of the Appliance Division and the Apparatus and Supplies Division. Feature presentations, of which there will be several, will be inspiring, entertaining and above all, they will realistically emphasize the "facts of life" as the industry lives it today. The Program Committee is shaping up another Convention by which N.E.W.A. will be enabled further to advance the arrival of the great "coming electrical age."

APPLIANCE DIVISION COMMITTEES ACTIVE THIS MONTH

As a prelude to the May Convention, in which they will play a prominent part, the functional and the commodity committees, of the N.E.W.A. Appliance Division are scheduled for a series of important meetings during the first quarter of the year. This month, the Major Appliances Committee, I. W. Danforth, Chairman, in the commodity group will meet. In the functional group, the Sales Promotion and Sales Training Committee, G. F. Kindley, Chairman, and the Store Arrangement and Store Management Committee, K. G. Gillespie, Chairman, will hold meetings.

Out of the work of these committees, last year, came several new and outstanding contributions. The Scientific Personnel Selection and the Basic Sales Training Programs are just two good examples. This month's meetings of these committees will follow agenda on which are included subjects the consideration of which will undoubtedly produce additional and similarly valuable projects and data. In keeping with N.E.W.A. practice, detailed reports will be published of each committee's activities and distributed to the general membership.

MANAGING DIRECTOR PYLE VISITS SOUTHERN MEMBERS

Following his attendance at the two meetings held at Chicago, late last month by committees in the Apparatus and Supplies Division, Charles G. Pyle, N.E.W.A. Managing Director, returned to New York for early February meetings of the Appliance Division Committees. He will then make an extended trip in the southern area, journeying as far as Florida, calling on members enroute. Along the way he will join the Appliance Division Director, R. C. (Bob) Hill, who is to conduct several local area N.E.W.A meetings at southern points this month.

Messrs. Pyle and Hill, while attending such local meetings during the past several months in many areas, have been told by a number of members that considerable valuable help results to members present. Mr. Hill goes over the many N.E.W.A. activities in detail for the benefit of members at each meeting. Question periods have proved a most interesting and helpful feature of each luncheon gathering. Mr. Pyle has found that members' interest in these meetings runs high. He expressed the opinion

that the lively discussions at these meetings are proving highly important in shaping general association activities to the pattern the members themselves consider most beneficial to them.

HEADQUARTERS HANDLING MANY INQUIRIES

It may or may not signify any trend toward better distribution methods that requests for information received at N.E.W.A. headquarters have been noticeably more numerous the past few months than formerly. In the past such requests always have been more or less commonplace in the day to day routine of the Association. However, the recent increase in the number of them and in the variety of subjects covered is so unusual as to merit attention.

The telephone, telegraph, mail, and personal visits of members and others, almost daily, bring requests which can be handled immediately in most cases, while in other cases special research is required to handle them. Headquarters supplies considerable information in this manner throughout the industry, and in its interests. Predominant among the matters now being inquired about are sales training, personnel selection, warehousing methods, salesmen's compensation methods, salesmen's traveling and expense reimbursement methods, catalog page set-up and stock control systems. These matters are the daily concern of every electrical distributor. Due to the energetic activities of N.E.W.A. committee members a fund of practical down-to-earth information is readily available at headquarters on all of these operating problems.

Many members have been kind enough to express appreciation of this helpful service. N. E. W. A. Headquarters Staff encourages members to make full use of it. The staff is always ready, and highly pleased to be of direct and specific service to any N.E.W.A. member who requests assistance.

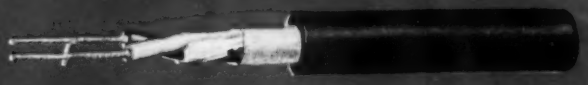
As Mr. Pyle puts it—"That's what we're here for; and moreover, the more wholesale distributors there are who know their problems and how to solve them the more economical and indispensable to American free enterprise will be the services performed by those distributors."

CRESCENT

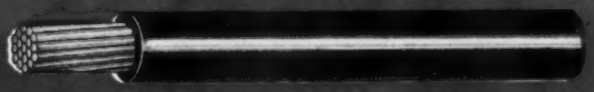
Makes

ALL TYPES OF WIRE & CABLE

Sold by Electrical Wholesalers

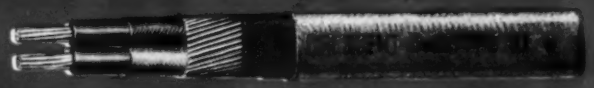


CRESCORD . Jacketed Portable Cord

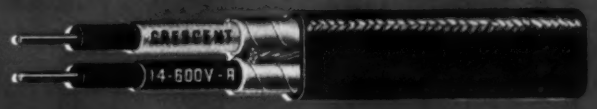


SYNTHOL Building Wire - Types T & TW

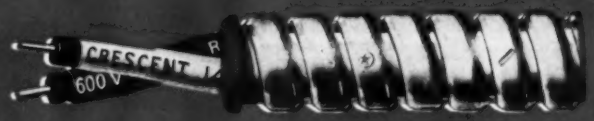
Rubber Covered Building Wire and Cable



Service Cable - Types SE-U; SE-A; SD



CRESFLEX Non-Metallic Sheathed Cable



A B C Armored Cable

AND AMONG OTHER TYPES THE FOLLOWING:

Bare Copper Wire & Cable
Brewery Cord
Control Cables
Fire Alarm Cable
Fixture Wires
Flexible Cords
Flexible Steel Conduit
Heater Cord
Neoprene Jacketed Portable Cable
PERMACORD
Power Cables
Shipboard Cable
Signal Cable
Slow-Burning Wire & Cable
Switchboard Wire & Cable
Telephone Wire & Cable
Thermostat Cable
Trench Cable
Varnished Cambric Cable
Weatherproof Wire & Cable
Welding Cable

CRESCENT NEMA

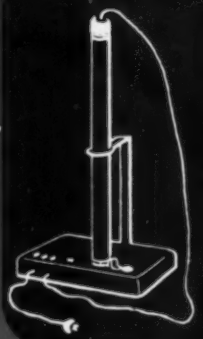
WIRE AND CABLE

CRESCENT INSULATED WIRE & CABLE CO.

TRENTON, N. J.

Compco
FLUORESCENT
LAMP AND STARTER TESTER

Tells and Sells... at the Flip of a Switch



1. BUILDS SALES
Shows your customer he's buying a good lamp that lights — a starter that works. Gives your sales story the added punch of a visual demonstration.

2. BUILDS PROFITS
By saving time and unjustified returns of lamps and starters. Test lamp first — then test starter — if both work, check for faulty fixture.

Must equipment for every counter where fluorescent lamps and starters are sold! A compact, easy-to-operate instrument for checking all standard size fluorescent lamps and starters. Tests accurately at the flip of a switch: 14 watt–15"; 15 watt–18"; 20 watt–24"; 30 watt–36"; 40 watt–48" fluorescent lamps. For 60-cycle, 110-120 volt A.C.

TESTS STARTERS – Starter socket on the same instrument board tests FS-2 for 14, 15, 20 watt lamps and FS-4 for 30 and 40 watt lamps; also "No-Blink" starters.

AVAILABLE THROUGH RECOGNIZED DISTRIBUTORS

Model 2C114 is Completely Self-Contained

Compact! Versatile! Easy to Operate!

5½" x 11½" – shipping weight 5 lbs. each.

MANUFACTURED BY
Compco CORPORATION
2251 WEST ST. PAUL AVENUE, CHICAGO 47, ILLINOIS
Manufacturers of Commercial, Industrial and Residential Fluorescent Fixtures

NEWS

(*Continued from page 63*)

REA Co-op sales of appliances and to co-operate with N.E.R.A. in organizing energetic, efficient selling campaigns throughout the electrified rural areas. In cooperation with other associations, NERA will strive to get the government to tax co-ops just as business is taxed.

One of the major projects of the program will be to have all electrical retailers provided with an official NERA Appliance Trade-In Guide and promote proper understanding as to the value of trade-ins being encouraged.

N.E.M.A. President Attacks Union's Boycott

R. Stafford Edwards, president, National Electrical Manufacturers Association recently declared that the "secondary boycott is nothing else but a legal racketeering method used by one union to raid another or to maintain a complete monopoly."

"The electrical manufacturing industry, victimized for twelve years by secondary boycotts, is glad that the President of the United States has again recognized in his message on the State of the Union that the secondary boycott is 'an unjustifiable practice' in certain of its applications," Mr. Edwards said.

He proclaimed that the industry calls upon Congress to outlaw all forms of the secondary boycott.

Boycott A Weapon

Mr. Edwards said that the right to strike and the other tremendous powers guaranteed labor by the Wagner Act actually make any boycott a punitive, coercive, uneconomic and monopolistic weapon with which any organized body may ride roughshod over the rights of the public, employers, and, in many cases, over another segment of labor itself.

"The organized secondary boycott is the same type of economic force as mass picketing and the sit-down strike. It takes from the public the right to make its own decisions on the merits of a dispute and, indeed, even takes that same right from the group of employees directly concerned," Mr. Edwards asserted.

He emphasized that the so-called primary boycott is in accord with American

Just a shade of difference

. . . BUT WHAT A DIFFERENCE TO YOU!

Chemical Preview
Cotton
Electrical Contracting
Electrical Equipment
Electrical World
Factory
Food Preview
Illumination
Industrial Equipment News
Knitter
Mill & Factory
New England Electrical News
New Equipment Digest
Purchasing
Textile Age
Textile Bulletin

Monthly Ads Like This . . .

powerfully promote your sales of modern industrial lighting through 16 key publications.

BORDERLINE VISION*
Stealing Production Time?
*Just a shade too dark slows down your workers.
*Just right means faster, better work.
Save Wasted Minutes
With Wheeler Skilled Lighting!
Wheeler Reflectors
SKILLED LIGHTING
MADE BY SPECIALISTS IN LIGHTING EQUIPMENT SINCE 1881

"Borderline Vision" – lighting that's just a shade sub-standard – is stealing production time in plants in your area. And just that shade of difference between good and not-quite-good-enough lighting can make a big difference to you, because Wheeler's "Borderline Vision" advertising campaign is finding and making new lighting prospects for every electrical wholesaler who carries the Wheeler line. Keep track of the Wheeler ads. They're paying off. **Wheeler Reflector Company, 275 Congress Street, Boston 10, Massachusetts.**

Distributed Exclusively Through Electrical Wholesalers

Wheeler Reflectors

SKILLED LIGHTING

MADE BY SPECIALISTS IN LIGHTING EQUIPMENT SINCE 1881

ARTCRAFT IS SHOW CASE LIGHTING AT ITS BEST

FINEST QUALITY

Fluorescent LIGHTING FIXTURES for SHOW CASES

Fabricated of the finest stainless steel - far more costly than ordinary metals - yet priced to meet competition. A lifetime rust proof finish. Supplied complete with all attaching parts. These parts are made of brass, plated to match, and designed to make all installations quick and easy.

Artcraft Fluorescent Show Case Lighting Fixtures come in all lengths to fit standard show cases, or made to specifications.

Made and wired by union labor. U.L. Approved.

ARTCRAFT FLUORESCENT CORP.

DESIGNERS & MFRS. OF MODERN LIGHTING FIXTURES

248-274 McKibbin Street
Brooklyn 6, N. Y.

Send for literature and price list

Rush your sample order now!

IMMEDIATE DELIVERY!

R. Stafford Edwards

ideals and principles but that distinction cannot be applied to any kind of secondary boycott. He pointed out that the secondary boycott is a method of giving one group the privilege of deciding the wages and working conditions of another group.

"What has existed in the electrical industry for twelve years is nothing more nor less than carefully organized and executed boycott by one union to maintain a complete nation-wide monopoly on the manufacture, distribution, transportation and installation of electrical products," Mr. Edwards said.

"Through the use of identifying labels on the products made by its members, this union boycotts all products manufactured by employees who have exercised their rights under the Wagner Act to affiliate with another union or with no union.

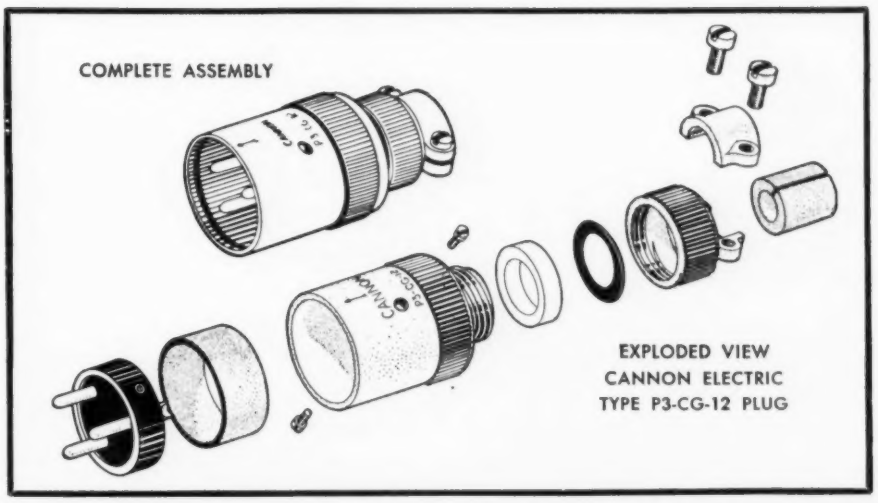
Unfair

"It is unfair to the public because it is denied the goods or services of an employer who has strictly obeyed the law, whose employees have made the choice given to them by law. As any monopoly does, it forces exorbitant prices on the public.

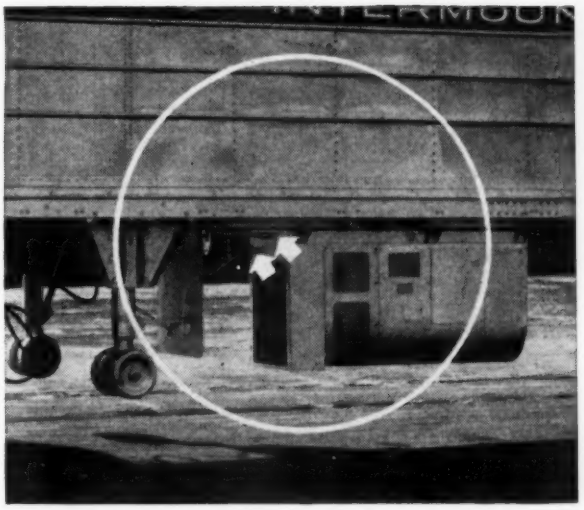
"The secondary boycott is unfair to employees who have exercised the rights guaranteed them by the Wagner Act. It either throws them out of jobs because their employer's market is throttled or it forces them against their will to affiliate with a union not of their choice.

"It is unfair to employers who are prohibited under the Wagner Act from influencing their employees in any way whatsoever, even if they felt justified in doing so. Their market is drastically reduced or they are put out of business altogether.

"The employers and employees who have suffered for twelve years under this type



CONNECTORS FOR TRANSPORTATION



Two Type "P" Connectors on Pacific Intermountain Express Refrigerator trailer. These rugged fittings spell convenience and durability because they are made for long wear and hard usage. . . . . Yet the cost is moderate.

Other Cannon Electric connector types which are adapted to trailer and semi-trailer use are "AP" series and the "XL" series. Write Department B-362 for further information on the "P" as well as the "AP" and "XL".

CANNON ELECTRIC

CANNON ELECTRIC DEVELOPMENT COMPANY

3209 Humboldt Street, Los Angeles 31, California

Canada & British Empire—Cannon Electric Co., Ltd., Toronto, Ontario • World Export Agents (excepting British Empire) Frazar & Hansen, 301 Clay St., San Francisco 11, Calif.

New Profit-Maker From BURGESS FOR YOU

This Handy Carton Contains

2 XX30E . . . 6 1ES . . . 1 XX22E . . . 4 2ES and 8 TE, packaged in bright new BURGESS labels! This new hearing aid battery assortment in its new, compact display merchandiser, has a new appeal for crowded counters and its new low price makes it attractive to all dealers. It's a real profit opportunity for you.

This handier-than-ever display carton hits the spot for quick, steady sales to all types of dealers. It's sized right—5″ x 8″—and priced right. You'll say it's a natural for busy counters everywhere. For a very low cost your dealers can break into the big, growing hearing aid battery market with an assortment that serves practically *all* popular vacuum tube instruments.

Packaged in bright new labels, Burgess hearing aid batteries now have the black and white striped identity that says, "Genuine Burgess Quality" to hearing aid users.

Send for FREE promotional helps

Mail order cards imprinted with your name and address . . . catalog pages for your salesmen. Use the coupon below . . . NOW!

BURGESS BATTERIES

Burgess Battery Company, Dept. 2-A, Freeport, Illinois

Gentlemen:

We want the following sales helps—please send them at once.

.....Imprinted Mail Order Cards.....Catalog Pages for our salesmen.

Send us information on the complete Burgess line, including hearing aid batteries.

Name.....

Address.....

City.....*Zone*.....*State*.....

of boycott don't care what it is termed or to what other type of boycott the President wishes to give his blessing, but they fervently hope that this unfair type of boycott will be made illegal by the new Congress as quickly as possible.

"It is obviously restraint of trade and the remedy could be found in the injunction procedures, damages and penalties now in the Clayton Act and by loss of rights under the Wagner Act," Mr. Edwards concluded.

New Sales Executive For Virginia Wholesaler

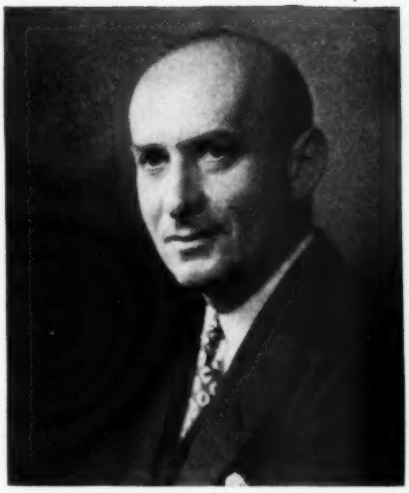
Harold D. Beck recently became assistant general manager for Eastern Electric Company of Lynchburg, Virginia, wholesaler of electric supplies, radio parts and appliances.

Mr. Beck was salesmanager for M. A. Hartley & Co., wholesaler of electrical and radio supplies at Staunton, Virginia, for ten years before joining the Eastern Electric Company.

Los Angeles Wholesaler To Erect New Building

LOS ANGELES—The Electric Supply Co., Inc., of this city has completed plans for its new building and is ready to start just as soon as materials are available. Perry G. Brown is president of The Electric Supply Co., Harwell A. Dyer is vice

SALES executives of Landers, Frary & Clark recently conducted three regional meetings with distributors. Left to right: front row, W. J. Russell, H. M. Parsons, B. C. Neece, E. L. Farquharson, E. J. Van Buskirk, back row, W. J. Cashman, S. Fisher, L. Moss, A. S. Bross and H. Payor.



ALAN STEINERT, president of the Eastern Company, Boston wholesaling firm, was recently elected president of the Electric Institute of Boston, succeeding Frank L. Nason. Mr. Steinert founded the Eastern Company in 1933. Photo by Fabian-Bachrach.

president and Russell Redman, secretary.

The new building, which will be located at 2059 Beverly Boulevard, will occupy all of a 110 ft. by 110 ft. lot. It will be one story high with heavy concrete supporting walls to permit the construction of deep mezzanines around most of it. The total available space will be approximately 20,000 sq. ft., several times that of the building Electric Supply now occupies.

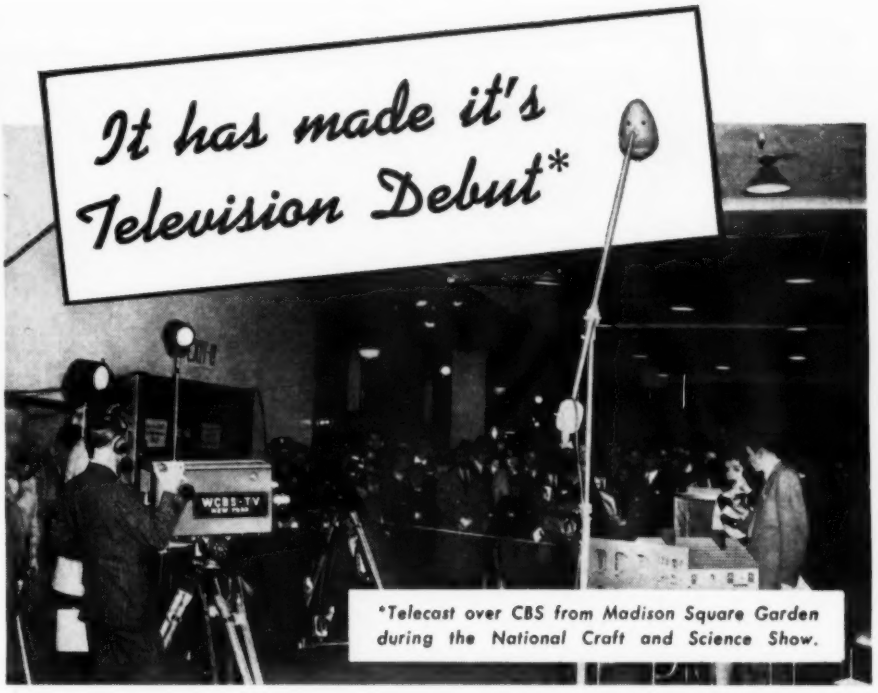
The company has added three new salesmen to its staff: Ernest Kempner, George Muyres and John Macdonald.

Record Radio And Television Production

WASHINGTON—Radio set production in 1946 broke all previous records for the industry while FM-AM and television receivers reached their peak in December, forecasting a steadily rising growth of these two new services in 1947, the Radio Manufacturers Association announced recently.

The RMA report said that based on its information from all industry sources, production of all types of radio receivers in 1946 exceeded 15,000,000. The greatest prewar set production was 13,642,334, achieved in 1941.

FM-AM and television receiver production rose sharply in December and brought the year's output to 181,485 FM-AM sets and 6,476 television receivers. December


It has made it's Television Debut*
WCBS-TV
*Telecast over CBS from Madison Square Garden during the National Craft and Science Show.

It has also been used in photography and there are hundreds of other uses for the

GIRAFFE

If you use any of these lamps:

R-40 Series
Heat Lamps
Sun Lamps
Drying Lamps
Reflector spots
Reflector floods
RFL — 2

RSP — 2
FT 220 — sealed beam (with auxiliary equipment)

Par — 38 Series
Projector spots
Projector floods

When you want to reach over, under, around, behind, with any of them, the Giraffe gives you one-hand control of position and direction.

VERSATILE — The Giraffe uses a wide range of lamps as shown above, wattages from 50 to 500.

MANEUVERABLE — Under one-hand control from the end of the boom . . . twist, turn, tilt, raise and lower all from one position at a twist of the wrist.

STURDY — Made of steel where strength is needed, aluminum where light weight is important. Reaches to 14 feet, yet folds compactly for storage. Mounted on caster stand fitted with exclusive Numocushion which prevents damage to light from jars when stand is lowered.

ADAPTABLE — Use color screens for effect lighting . . . diffusers for soft lighting . . . masks to control or restrict area covered. Use it for Fashion shows, store displays, stage lighting, photography, artist's and sculptors' modeling light, therapy, paint drying, and with suitable auxiliary equipment for making stroboscopic studies in places otherwise hard to reach.

Jobbers Inquiries Invited—Catalogue Sheet on Request. Made by the makers of the famous FRESNEL Dramaspot and FRESNEL Photospot

DISPLAY LIGHTING INCORPORATED
417 EAST 61ST STREET • NEW YORK 21, N. Y

3 fast-selling money-makers by FARADAY

★ NATIONALLY ADVERTISED!

★ NATIONALLY RECOGNIZED!

FARADAY **Plugmaster**

ALL-APPLIANCE CORD SET

Here's the most *versatile* and most *profitable* cord set ever developed! Plugmaster fits iron, toaster, waffle baker, coffee maker—all appliances—because of its patented self-adjusting plug. Appeals instantly to all who see it because it ends cord worries. Nationally advertised in Saturday Evening Post, Ladies' Home Journal, Better Homes and Gardens, American Home—approved by Underwriters' Laboratories. Unique display enables customer to try Plugmaster on nine different type terminals!

Fair Trade Retail Price **$1.39**

"Try it yourself" display Effective! Convincing!

FARADAY

SWEET-TONED CHIMES

Beautiful Faraday chime line includes styles and colors for every customer at the right price, assuring quick turnover. Eleven models to choose from, including tube and bar chimes. All engineered for positive, trouble-free action. Smart Faraday chime display is wired and equipped with push-buttons and ready to plug in so customer can test six different chimes.

Fair Trade Retail Price **$3.95** and up

Broilmaster

REG. U. S. PAT. OFF.

FARADAY

Broilmaster provides the world's easiest method of broiling, as any customer can readily see—plus flavor unmatched by any other method. Fits over any frying pan—no stooping, no greasy broiling oven to clean. Inverted on its own removable base, Broilmaster is also a handy electric grill. Attractive lighted display speeds sales.

$4.50 Fair Trade Retail Price

Write for full information

FARADAY

ELECTRIC CORPORATION

Adrian, Michigan

RUDOLPH A. SCHATZEL, vice president of Rome Cable Corporation, Rome, N. Y., has been recently awarded a certificate of appreciation by the War Department for patriotic service in the research, development and production of wire and cable. During World War II Mr. Schatzel was chairman of the Technical Advisory Committee for Wires and Cable, formed by the Rubber Bureau of the WPB.

alone accounted for 40,903 FM sets and 3,561 television receivers. Total set production, through December 27, by RMA member-companies, amounted to 1,454,687, which was slightly under November's production due to the December holidays and the shorter work-month.

Approximately 77 percent of all radio sets manufactured by RMA members in 1946 were of the table model type, while consoles constituted about 7 percent. A shortage of wood cabinets was largely responsible for the low console output.

Due to reconversion and pricing difficulties radio set production was slow to reach prewar rates, but at the year's end receivers were being manufactured at an annual rate of nearly 20,000,000.

Most of the FM-AM receivers turned out last year were of the console type. Console FM-AM sets produced by RMA companies numbered 165,762 as compared with 15,723 table models.

Television Sets

More than 5,000 of the television sets produced by RMA companies were table models with radio reception attachments. More than 1300 were radio-television consoles, while the few remaining were projection types.

Because some companies did not report their early and unbalanced production of radio sets, RMA tabulations of sets manufactured by member-companies totalled only 13,326,985 in 1946. However, a check

with government and other industry reports clearly indicates that total production by the entire industry exceeded 15,000,000 sets.

Of the sets reported by RMA members, 10,219,191 were table models, including 1,215,924 radio-phonograph combinations, 925,171 were consoles, of which 820,979 were radio-phonograph combinations. Automobile radio receivers numbered 1,153,458, while portables accounted for 1,022,689 sets.

Demand for Electricity Highlight Of REA Report

WASHINGTON—The outstanding feature of the recent Rural Electrification Administration's annual report issued by the U. S. Department of Agriculture was the unprecedented demand of American farmers for electric service.

In a transmittal letter to Secretary of Agriculture Clinton P. Anderson, REA Administrator Claude R. Wickard said: "A decade ago, when the Federal rural electrification program began to gather momentum, its opponents questioned whether the American farmer wanted electricity and, if he wanted it, whether he could afford it.

"Today these questions have been answered.

"The American farmer not only wants electricity; he demands it. He not only can afford it; he cannot afford to be with-

J. C. RENDLER of Los Angeles is the owner of an electrical wholesaling business that has been in operation since 1940. He started in the electrical business as a contractor 'way back in 1904, in the knob and tube days.

FULLMAN Latrobe PRODUCTS

FLOOR BOXES ★ WIRING SPECIALTIES

FULLMAN MANUFACTURING CO. QUALITY AT LATROBE SUPREMACY LATROBE, PA.

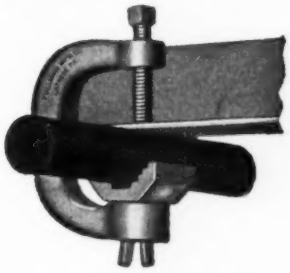
Latrobe Products are tops in quality, in performance and in point of economy. Quickness of installation saves valuable time.

No. 110 Non-adjustable Watertight Floor Box

Strong iron body with 3½" brass cover plate. Shown with No. 208 Receptacle and No. 207 Bell Nozzle.

No. 280 Nozzle with No. 200 Cover Plate

Ten Amp. 250 Volt Receptacle in Brass Housing, ½ in. brass extension.

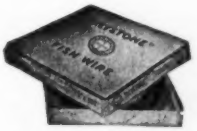


No. 470 "Bull Dog" Pipe or Conduit Hanger

Quick and convenient for hanging ½", ¾" and 1" pipe or conduit to steel beams up to ⅜" thick. Used also as ground clamp.

"Bull Dog" Insulator Support

Used extensively for fastening porcelain or glass insulators to exposed steel work.



Keystone Fish Wire

Flat Steel properly tempered. Ten sizes. Coils from 100 ft. up.

FULLMAN MANUFACTURING CO.
LATROBE . . . PENNSYLVANIA

GREENLEE HYDRAULIC BENDER

"Our battery of GREENLEE Hydraulic Benders consistently provides substantial savings in both time and materials on our many thin-wall conduit and bus-bar installation jobs," reports Mr. Joseph A. Pope, Executive Vice President of the Beltzhoover Electric Company, Cincinnati.

"Maintenance cost is low and the GREENLEE is easily carried and set up."

Here's proof again that the compact, portable GREENLEE Bender, which works "right on the job", is a great time and materials saver . . . an important aid today when jobs are marked "Rush" and manpower is short.

Sales opportunities are great for the GREENLEE. One-man-operated . . . in but a few minutes makes bends in pipe up to 4½", rigid and *thin-wall* conduit, tubing, bus-bars. Get complete sales facts today. Write Greenlee Tool Co., Division of Greenlee Bros. & Co., 1842 Columbia Avenue, Rockford, Illinois, U. S. A.

REGISTERED TOOLS
GREENLEE
FOR THE CRAFTSMAN

YOUR SALES OPPORTUNITIES WITH THE GREENLEE LINE

Hydraulic Conduit, Pipe and Bus-Bar Benders • Steel and Copper Tube Benders • Hydraulic Pipe Pushers • Knockout Punches and Cutters • Radio Chassis Punches • Joist Borers Cable Pullers • Spiral Screw Drivers • Automatic Push Drills • Auger Bits • Expansive Bits • Bit Extensions • Draw Knives • Chisels and Gouges • And Many More.

out. It is essential to the national welfare that he have it."

Large Backlog

Administrator Wickard pointed out that although REA allocated twice as much money for loans in the fiscal year 1946 as in any previous single year, the backlog of applications for loan funds could be only slightly reduced by the end of the fiscal year. The agency allocated a total of $290,000,000 to previously organized borrowers and new borrowers in 45 states and Alaska, but, Mr. Wickard reported, "New applications flooded in so fast that the backlog of applications which stood at $240,000,000 at the beginning of the fiscal year, amounted to $208,000,000 at its close."

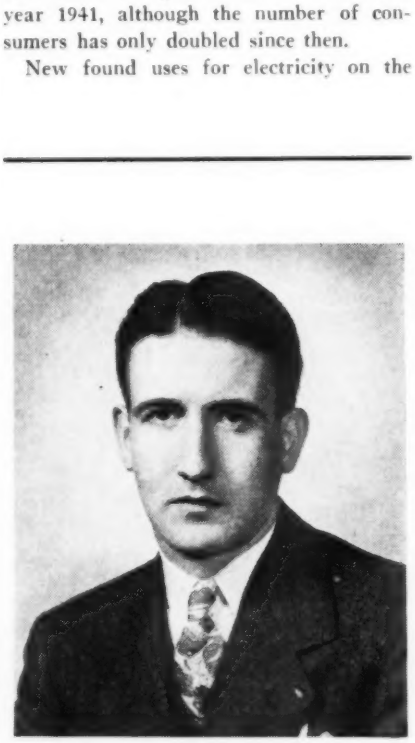
Another major development cited by the report was the increased use of power during the year by consumers already connected by REA borrowers.

Facilities Inadequate

In some sections of the country, the increase in power use was so great that existing facilities became inadequate, and additional or re-designed plant equipment was made necessary.

REA financed power systems distributed during the fiscal year a total of 2,185,000,000 kilowatt-hours of electricity to nearly 1,550,000 rural consumers. This is about four times the power used in the fiscal year 1941, although the number of consumers has only doubled since then.

New found uses for electricity on the



SUPPLIES MANAGER joins mfr.—Bactericidal specialist and representative in the New England states is the new title for R. T. Bennett of the Tru-Air Ultraviolet Products Co., Los Angeles (a subsidiary of the Mitchell Manufacturing Co.). Mr. Bennett was formerly with the Ralph Pill Electric Supply Co. of Dover, N. H.

"Yes—we have no pipe." National Wholesale Electric Co., Los Angeles can thank the scarcity of building materials for the fine pipe rack recently completed. National Wholesale obtained the supports, four eight-inch I-beams, from a burned down gravel plant.

farm, generally increased availability of appliances and equipment, and general modernization of farm life all contributed to the rise in use of electricity, the report stated.

Another development reported in the REA program during the year was the emergence of a "definite pattern" of area coverage electrification. With more than half of the country's 6,000,000 farms already electrified, a clear picture of the number and location of REA borrowers, the areas which each will serve and the ultimate number of their consumers is beginning to emerge.

Lenk Mfg. Co. Can Testify To Value of Good Will

When fire damaged the plant of the Lenk Manufacturing Company in Newton Lower Falls, Massachusetts last October 3, its only effect on the Lenk organization was a brief pause in what otherwise would have been a routine day. Before Newton Fire Department officials had declared the fire under control, Col. D. Allen Lenk and his associates had located temporary quarters for the firm and exactly 23 days later the plant was back in production.

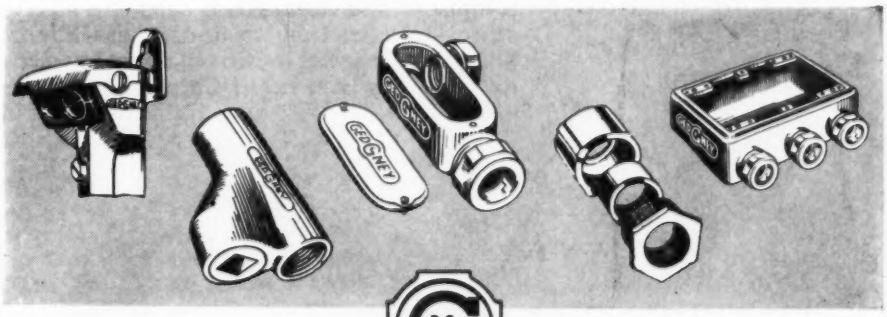
Gedney Fittings SELL faster!

because every contractor knows GEDNEY FITTINGS . . . *FIT!*

Not because we tell them so, but because we have built user acceptance for GEDNEY fittings ON THEIR MERITS. This is important to wholesalers seeking stock lines which require little, if any, extra sales effort to move goods. GEDNEY fittings—a complete line, built of high grade malleable iron to exacting standards of design, fabrication, inspection and packaging—have been pre-sold to users in the entire electrical market.

Consistent advertising to the trade in leading magazines . . . complete, easy-to-use catalogs and manuals . . . and modern merchandising combine to form buying attitudes in favor of GEDNEY whenever fittings are considered. Point-of-sale effectiveness is assured by packages imprinted with the familiar all-over GEDNEY trade mark pattern. All packages are labeled for instant identification of contents for the convenience of user and jobber.

If GEDNEY fittings are not yet on your shelves, send for complete literature and information.



SOLD ONLY THRU WHOLESALERS

WRITE FOR NEW CATALOG TODAY

GEDNEY ELECTRIC CO.
FOUNDRY, FACTORY & SHIPPING POINT: TERRYVILLE, CONN.
RKO BLDG., RADIO CITY, NEW YORK 20, N.Y.

KLEINS
FOR MEN WHO
WANT THE BEST
Every good workman appreciates high quality in the tools and equipment he uses. To a lineman, however, this regard for quality is more than admiration for fine craftsmanship. The lineman daily trusts his very life to his safety strap, belt and climbers—and under such conditions high quality is more than a matter of pride.
Good workmen know that there's no substitute for experience. It is the years of expert craftsmanship back of every piece of Klein equipment that make Klein belts and safety straps—Klein climbers and grips—Klein pliers and wrenches the first choice of linemen today as they have been "since 1857."
KLEIN TOOLS
Since 1857
This book on the care and safe use of tools will be sent on request.
TOOLS
KLEIN
Mathias KLEIN & Sons
Established 1857
Chicago, Ill., U.S.A.
7200 BELMONT AVENUE, CHICAGO

Wholesalers Can Enter Lighting Show Contest

CHICAGO—A competition for $1200 in Merit Awards designed to bring to the Second International Lighting Exposition, Nov. 3-7, 1947, outstanding examples of "What Planned Lighting Can Do" in industrial, store and office applications and in floodlighting and street lighting was announced recently by the Exposition Operating Committee.

"Through these Merit Awards," the committee stated, "we hope to give opportunity for electrical contractors, utility lighting men, architects, consulting engineers, and wholesaler's representatives not only to gain recognition for work well done, but through the medium of display at the coming Exposition to provide inspiration and ideas for Better Lighting to the thousands who will be in attendance."

Entries are to cover reports and data on the results of planned lighting installations made during the calendar years of 1946 and 1947. All submittals accepted by the Board of Judges will be placed on exhibit at the Second International Lighting Exposition and Conference, and will be given an Award of Merit. In addition, the Board of Judges will also award three cash prizes of $100 each to the best entries from each one of the four classifications, a total of 12 cash prizes for a total of $1200. Classification 1. Electrical Contractors; Classification 2. Utility Lighting Representatives; Classification 3. Architects and Consulting Engineers; Classification 4. Wholesaler's Lighting Specialists and Salesmen. The entire Merit Award Program is under the direction of the Second International Lighting Exposition and Conference, which is sponsored by

LOUIS H. WAGNER recently joined the sales staff of The Art Metal Co. Mr. Wagner will represent the company in a newly created territory in Indiana, Kentucky, Ohio and West Virginia.

SOME STAFF MEMBERS of Jarvis Electric Supply Co., Los Angeles, Calif., hold up work of getting settled in a new location at 784 Crocker St. long enough for our camerman. Left to right: I. Harris, partner; A. Webb, driver; M. J. Fischer, salesman; I. Jarvis, partner; J. F. Bilek, accountant; Dave Bass, inside salesman.

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the Industrial and Commercial Lighting Equipment Section of the National Electrical Manufacturers Association.

An official entry blank, containing the complete rules and conditions of the Merit Award competition, together with helpful suggestions for the preparation of entries may be had by writing to the International Lighting Exposition Award, Suite 818, 326 W. Madison St., Chicago, Ill.

From Selling Wholesalers To Buying For Harvard

BOSTON—Prescott A. Vose, formerly New England sales manager of the John A. Roebling's Sons Company, was recently appointed purchasing agent for Harvard University, Cambridge, Mass. Mr. Vose succeeds William G. Morse who is retiring.

During World War II Mr. Vose was state director of the Office of Price Administration in Maine.

New Mfrs. Representative Firm Started in Phila.

PHILADELPHIA—Edward Kerschner, formerly Eastern district manager of the General Cable Corp., recently announced the formation of The Electrical Distributors Company. The new firm, which will have offices in the Liberty Trust Building, Philadelphia, will act as the manufacturers' representative for several companies with complementary lines of electrical supplies and equipment.

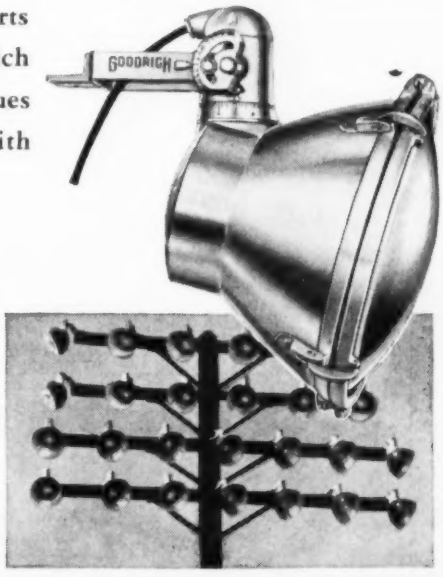
Edward Kerschner, Jr. is secretary of the new firm.

FLOODLIGHTING FOR NIGHT SPORTS

Let GOODRICH *Help You!*

● No floodlighting job is too small—or too large—for Goodrich. And whatever the project for night sports and recreational areas, Goodrich offers proved plans and plus values in floodlighting equipment with many outstanding advantages.

The Sporto and Lumo Floodlights, illustrated here, provide proper distribution and intensity for most recreational areas.



Complete Engineering Service

Goodrich illuminating engineers will be glad to study your floodlighting problems, recommend the proper equipment for specific needs, make lighting layouts, etc. This assistance is yours without obligation.

Sold Through Electrical Wholesalers

RLM

GOODRICH
ELECTRIC COMPANY
4600 BELLE PLAINE AVENUE, CHICAGO 41, ILLINOIS

America's finest wholesalers

ROYAL-NOARK
Renewable FUSES

ROYAL-NOARK
Non-Renewable FUSES

ROYAL "Crystal"
the ORIGINAL
GLASS-TOP FUSES

sell the ROYAL line to

ROYAL WIRE

ROYAL CHRISTMAS
LIGHTING SETS

ROYAL
"Sealed Tight"
TROUBLE
LIGHTS

America's finest retailers

ROYAL

WRITE FOR CATALOGS

Quality WIRE • CORD SETS
CARTRIDGE and PLUG FUSES • FUSTATS
TROUBLE LIGHTS • CHRISTMAS LIGHTING SETS

ROYAL ELECTRIC CO., Inc., PAWTUCKET, R. I.

IN ORDER to provide service for the increasing number of electrical connector users in the Western States, the Burndy Engineering Co. recently opened a new factory and warehouse in Vernon, Calif. Lawrence Lyons is in charge of the new plant.

"Radio In Every Room" To End Family Battles

WASHINGTON—The Radio Manufacturers Association will place special emphasis on the advantages of FM reception throughout its $50,000 campaign to promote "A Radio for Every Room—A Radio for Every Purpose," Edward R. Taylor, chairman of the RMA subcommittee in charge of the drive, said recently in a talk before the FM Association at the Statler Hotel, Washington, D. C.

While about 90 percent of American homes now have at least one radio receiver, Mr. Taylor said, less than half of them have two or more sets. Only one out of three families have two radios.

"We're all familiar with the Great American Battle being waged in many households daily as to the radio program to be tuned in," Mr. Taylor said. "Dad wants the prize fight; Mother wants the musical show; Son wants Tom Mix, and so on. The only solution to this problem is more radios."

The living room is first, the bedroom second and the kitchen a poor third as the favorite place for a radio, Mr. Taylor reported. The great majority of radio receivers in the living room are consoles and radio-phonograph combination sets, while the bedroom has the greatest number of midget and table model sets, with the kitchen running second on midgets and third on table models.

Mr. Taylor pointed out that FM broadcasting opens an entire new field of radio entertainment and offers a compelling reason for every family to increase the number of radios in its home. The increased number of radio stations which FM is bringing on the air makes it imperative to have additional radio receivers in the home so that every member of the family may tune in his favorite program, if necessary, at the same time.

GE Affiliates Grouped In New Department

President Charles E. Wilson, General Electric Company, recently announced the establishment of an Affiliated Manufacturing Companies Department.

The manufacturing affiliates include Carboloy Company, Inc., General Electric X-Ray Corporation, Hotpoint, Inc., Locke Insulator Corporation, The Monowatt Electric Corporation, Telechron Inc., and the Trumbull Electric Manufacturing Company.

Mr. Wilson announced that Vice President L. R. Boulware had been named general manager of the new department. E. J. Harrington has been appointed manufacturing manager and Roy W. Johnson marketing manager.

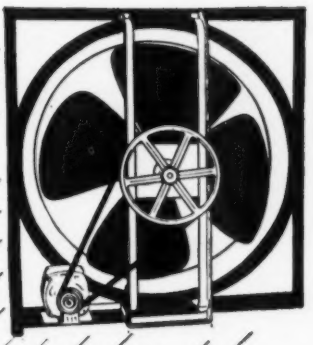
Penetray Reduces Price On Infra-red Heat Lamp

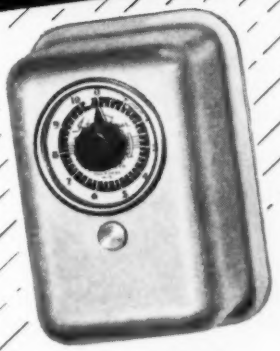
TOLEDO, OHIO—The Penetray Corporation, Toledo, Ohio, manufacturer of infra-red heat lamps for home and industry, recently advised distributors by telegram of a major price reduction on the new Penetray heat lamp.

In announcing the price reduction from $3.50 to $2.90 at retail, Penetray said that it is backing the anti-inflationary fight and the return to a sane and sound base for higher production, lower costs and greater benefits both to its employees and the public.

CHARLES H. GODDARD, assistant general manager of the Lighting Division, Sylvania Electric Products Inc. was recently appointed general manager of the Fluorescent Fixture Division. Mr. Goddard is treasurer of the I.E.S. He will have his headquarters at the Ipswich, Mass. plant.

HELP BEAT THE HEAT this summer





MAKE Extra Profits with

Paragon

Timers for attic and window fans

Thousands of homes have attic and window fans . . . still others will have them.

You can make extra profits by helping these homes "Beat the Heat," with Paragon AF Timers to control the fans. Provides extra comfort and convenience. Preset, these timers control the fans automatically, for any period, up to 20 hours.

Work with all A.C. fans . . . Telechron motored (QUIET), handsomely finished drawn aluminum case . . . dial and pointer protected with clear Plastacele.

Timer motor runs only when timer is operating the fan. Setting may be changed at any time without harming the timer. Dial graduations plainly marked for easy setting. Lists at only $9.75 . . . worth that in one season . . . good for many many years.

Leading jobbers stock attic fan timers by Paragon . . . maker of "A Timer For Every Need."

$9.75 list price

"Mr. Tops" the Paragon symbol of Top Quality

PARAGON ELECTRIC COMPANY
1630 TWELFTH STREET • TWO RIVERS, WISCONSIN

Paragon Two Rivers WISCONSIN

BUILDERS OF ELECTRICAL EQUIPMENT . . . SINCE 1905

Get your copy of this *New, Valuable Catalog*

on EVER-LOK SHOW CASE RECEPTACLES

Typical pages showing quick, safe assembly of show case lighting with EVER-LOK Receptacles and Fittings.

This new, 12-page catalog explains how the R & S SIMPLIFIED SHOW CASE WIRING SYSTEM fitted with R & S EVER-LOCK Connectors, Plugs, Jumpers, and associated Fittings permit any show case or store fixture to be electrically interconnected to adjacent cases or store fixtures or connection to the building's floor, wall or underfloor duct outlet.

Many electrical wholesalers are finding EVER-LOK Show Case Receptacles and Fittings an important source of extra profits. Modern stores everywhere are demanding complete electrical flexibility for quick and safe changes of show case locations. Be ready to meet the increased demand created by our national advertising in magazines reaching department stores, general and variety stores. Full facts are contained in catalog SC546-5 . . . yours for the asking.

AUTOMATIC LOCKING PLUGS assure *double automatic locking feature* making the plug casing mechanically fast to the Receptacle or Connector.

SALES OFFICES IN PRINCIPAL CITIES

SINCE 1902

RUSSELL & STOLL COMPANY, INC.

Precision-Built Electrical Equipment

125 BARCLAY STREET, NEW YORK 7, N. Y.

Lasser Mfg. Company Has New Plant In Miami

A new, larger plant has been recently acquired by the Lasser Manufacturing Company in Miami, Florida.

The new building, completely modern throughout, takes in a square block in the southern city and has excellent rail and highway facilities including a private siding on the Florida East Coast Railroad main line.

General offices of the Lasser Manufacturing Company, which manufactures a complete line of fluorescent lights and lamps, will be located in the new building at 40 N. E. 22nd Street, Miami.

Gough Branch In Long Beach Gets More Men

LONG BEACH, CALIF.—Ray Mattson, branch manager of Gough Industries, Inc., Long Beach, Calif. recently reported that activities in their new place of business at 2228 Atlantic Ave. have been stepped up considerably.

Frank Mayo, salesman, has been transferred from the Los Angeles main office.

Now Available!—THE NEW *Big Beam*

Model No. 211

PORTABLE ELECTRIC HAND LAMP

Turns Darkness into Daylight

Ideal for farmers, outdoor sportsmen, auto owners, truckers and hundreds of other utility, industrial and emergency uses. Lightweight. Finest construction. Fast moving. Other dry cell and rechargeable models with accessories. Backed by effective dealer helps and consistent advertising in general, trade and farm publications. A *real source* for better profits. Write for complete information *now*.

U-C LITE MANUFACTURING CO.

Dept. G • 11 East Hubbard St., Chicago 11, Ill.

THE "SUN" WILL SHINE on Admiral R. E. Byrd and his crew of explorers in Little America in the Antarctic, even during the three months' period of total darkness. But it will be man-made sunshine. One of the last items to be placed aboard the USS Philippine Sea, the last ship to leave for the expedition, was a stock of two dozen sunlamps. Hoyt Scott (right), G.E. engineer, explains to Admiral Byrd that the lamps are a new type manufactured by GE which require no special equipment, and can be screwed into any lighting socket.

He will handle small appliances and toys. Cy Youngerman who specializes in refrigerators also comes to the Long Beach branch from the Los Angeles office. Lou Walton, an old timer in Long Beach, will take on kitchen cabinets and radios.

One of the features of the Long Beach branch is the radio parts department, which is rapidly being built up to carry a complete line of such parts.

Long Beach and the contiguous Bay Area have grown very rapidly in the past few years and now has a population of about 500,000.

Telechron Announces New Appointments

ASHLAND, MASS. — I. W. Kokins, president of Telechron, Inc., of this city, recently announced the appointment of David Blair, Jr., as general sales manager in charge of all sales and advertising activities. Mr. Blair has been associated with the company in several executive sales positions and has had many years of valuable experience in the business of selling Telechron products.

Russell T. Woodward has been ap-

SPECIFY Rmc RO-GLARE THE GUARANTEED LINE

PORTABLE LIGHTING FOR EVERY PURPOSE
PROMOTIONALLY PRICED FOR EVERY PURSE

This year the smart dealer will buy merchandise with proven consumer acceptance . . . guaranteed by a manufacturer of proven reliability. In portable fluorescent lighting, the smart dealer will choose RMC . . . the nation's largest line of sales-proven, consumer accepted desk lamps and kitchen fixtures . . . guaranteed for value, quality, and workmanship by Richter. At jobbers and distributors everywhere.

SEND FOR DESCRIPTIVE CATALOG SHEETS TODAY!

SPECIFY Rmc GUARANTEED DESK LAMPS

Rmc 1480

Desk lamps in electro-plated and sprayed finishes for executives, juniors, students and hobbyists.

SPECIFY Rmc GUARANTEED KITCHEN FIXTURES

Rmc SERIES 700

Kitchen, bathroom, hallway, playroom, and bed-lamp fixtures, U. L. approved for permanent mounting or with plug-in type mounting.

UNION MADE WITH ALL U.L. APPROVED PARTS IN 110-120 VOLTS, 60 CYCLES, A.C. CURRENT. OTHER VOLTAGES AND CYCLES AVAILABLE ON SPECIAL ORDER

AMERICA'S LARGEST MANUFACTURER OF PORTABLE FLUORESCENT LIGHTING EQUIPMENT

RICHTER

METALCRAFT CORPORATION

160 EAST FIRST STREET • MT. VERNON, N. Y.

Expanded facilities in our new factory make it possible for us to offer RADIBESTOS WIRE to additional customers.

Users of asbestos covered wire—either solid or stranded—will find that RADIBESTOS WIRE will meet their every requirement for highest quality, neat appearance and durability.

High manufacturing standards and careful inspection safeguard RADIBESTOS WIRE quality and guarantee its uniformity.

Tell us your needs and let us submit samples and quotations.

The sample card illustrated here contains nine different styles of

RADIBESTOS WIRE.

Write for one today.

LOOK FOR RADIBESTOS Wire ON THE SPOOL

RADIX WIRE Company

2800 EAST 55TH STREET · CLEVELAND, OHIO

pointed manager of standard clock sales effective immediately. Mr. Woodward's former position was that of district manager in charge of the Central District with offices in Cleveland, Ohio. Mr. Woodward has returned to factory headquarters in Ashland after serving many years in sales work in the eastern and central states.

GE Plans Meetings With Appliance Distributors

BRIDGEPORT, CONN.—The General Electric Appliance & Merchandise Department will hold a nation-wide series of two-day meetings with its major appliance distributors February 10 to March 1, C. R. Pritchard, general sales manager of the department, recently announced.

Two groups of key General Electric sales people will conduct the meetings. Meetings are scheduled as follows: Bridgeport, Feb. 10 and 11 for New York distributors and Feb. 13 and 14 for New England distributors; Philadelphia, Feb. 17 and 18; Chattanooga, Tenn., Feb. 21

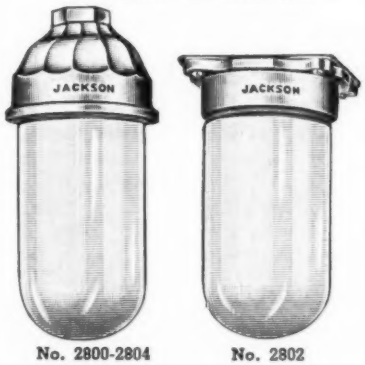
FOR

IMMEDIATE SHIPMENT

JACKSON

VAPOR PROOF UNITS

now made in Aluminum



No. 2800-2804 **No. 2802**

- **No. 2800 has a cast of aluminum hood tapped for ½" pipe. For 60-100 watt lamp.**
- **The 2804 for 150-200 watt lamp. The 2802 is an outlet box type and can be mounted on either a 3¼" or 4" box. For 60-100 watt lamp.**
- **Sold only thru Electrical Wholesalers.**
- **Manufacturers of Lighting Equipment.**

JACKSON

ELECTRICAL COMPANY

900-910 W. Van Buren St., Chicago 7, Ill.

WHOLESALING SPECIALIST — In 1939, F. S. Fletcher started the Fletcher Electric Specialty Co. in Los Angeles, Calif. The fields originally selected to sell were electric motor repair shops and electrical maintenance departments of industrial plants. The firm has consistently specialized in selling those two fields and has built up quite a reputation for its service.

and 22; Chicago, Feb. 24 and 25; Cleveland, Feb. 28 and Mar. 1.

The western troupe will make the following stops: Kansas City, Feb. 10 and 11; Dallas, Feb. 13 and 14; Los Angeles, Feb. 17 and 18; San Francisco, Feb. 20 and 21; Seattle, Feb. 24 and 25; Salt Lake City, Feb. 28 and March 1.

Chicago I.E.S. Hears Talks On Floodlighting

CHICAGO—At a recent meeting of the Chicago Section, Illuminating Engineering Society, members heard Louis J. Cahill, district sales representative, Benjamin Electric & Mfg. Co., Chicago, analyze the problems of floodlighting for sports and recreational purposes.

Mr. Cahill, who is a graduate of the University of Akron and a prominent engineer, discussed the most effective means of lighting for football, baseball and softball.

Sharing the program with Mr. Cahill, Frank D. Wyatt, electrical engineer for the Chicago Park District, presented a discussion of the actual floodlighting installation in Soldier Field. Mr. Wyatt pointed out that the installation was unusual because of the wide distances necessary between mountings and the need for maximum visibility with greatest eye comfort for spectators.

Traffic-Stopping, Eye-Catching

RITTENHOUSE

CHIME DISPLAY BOARDS

Tempt Prospects to Practically Sell Themselves

RITTENHOUSE

Standard Display Board

Form No. RD6-86

Completely wired and equipped with chimes, push buttons and transformer, ready to plug in. Chimes displayed are models #312, #314, #316, #410 and #520—to be billed as usual.

Width: 48″
Height: 44″
Depth: 6″

Long tubes extend 16″ below board. Shipping weight approximately 73 lbs.

RITTENHOUSE

Counter Display

Form No. RD6-84

This attractive unit displays two fast-selling popular low-price Rittenhouse Chimes that have especially large volume possibilities. Included are models #220 and #250—to be billed as usual. Push buttons, and all necessary demonstration equipment are completely installed, ready for immediate use.

Width at base: 18″
Depth at base: 12¾″
Overall height: 16⅝″

Shipping weight approximately 25 lbs.

To jump Chime sales to new highs, keep one of these new Rittenhouse Display Boards *where your store traffic is heaviest* so your prospects can press the buttons and hear the new golden tones of the Rittenhouse Chimes they have seen advertised so consistently in their weekly and monthly national magazines.

Note how many people stop, press the buttons and listen for the tones of each model displayed; then watch their interest in this "live" demonstration turn into quick, *extra* sales—and profit.

Write us—let us tell you how you can secure one or both of these money-making Displays — shipped F.O.B. our plant—*with free chimes that exceed the cost of either Board.*

The Rittenhouse Company, Inc.,
Honeoye Falls, New York

Chimes by

RITTENHOUSE

Slater

"LIFETIME" WIRING DEVICES

ROTARY SNAP SWITCH

3 Amp — 125 Volts 1 Amp — 250 Volts
⅛" IPS x 5/16" Shank — Single Hole Mounting
6" Leads — One Knurled Nut
Brass or Nickel Finish
Catalog No. 100 Rotary Snap Switch
Std. Pkg. 200 — Pkg. Wt. 6 lbs.
Bulk Packing 500-1000 Optional

No. 100 SPST

This is the famous Slater "Lifetime" Switch. Our tests are discontinued after 30,000 on-off cycles.

Listed by UNDERWRITERS' LABORATORIES, INC.

BAKELITE LAMPHOLDER—3 PIECE

Body and Interior — 1 Piece — ⅛" Cap
Metal Interlocking Ring
250 Watts — 250 Volts
Finish: Black — Metal Parts: Polished Nickel

	Std. Pkg.	Pkg. Wt.
Catalg Nos. 200, Black Bakelite	200	24 lbs.
Catalog Nos. 200-1, Ivory Bakelite	200	24 lbs.

Listed by
UNDERWRITERS' LABORATORIES, INC.

Slater Products are Distributed and Sold Through the Electrical Wholesaler

Slater ELECTRIC & MANUFACTURING CO. INC.
56th STREET & 37th AVENUE
WOODSIDE, N. Y.

Mastercraft Electric Elects New Officers

NEWARK, N. J.—Mastercraft Electric Company of this city recently announced the election of new officers for the company.

Irving Skolnick, formerly vice president in charge of sales and advertising, is the new president and general manager.

Sidney Blackman is now vice president and will coordinate sales promotion, market research and production schedules. Mr. Blackman previously headed purchasing and production.

The company, manufacturing a complete line of fluorescent lights and fixtures, is pushing design research to improve its products by improvement of component parts.

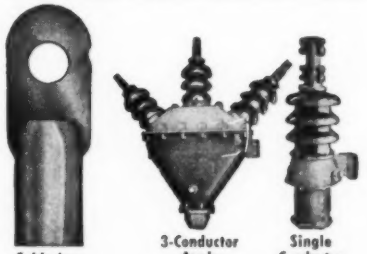
Staff Changes Announced By The Okonite Company

PASSAIC, N. J.—The Okonite Company, manufacturer of electrical wires and cables, Passaic, N. J. recently announced that R. S. Keefer, formerly sales manager, has been appointed vice president in charge of

ELECTRICAL SPECIALTIES FOR HEAVY INDUSTRIAL SERVICE

RMC

FROM STOCK



Write for a complete selection of RUSGREEN bulletins

ENDULATORS (POTHEADS) ALL SIZES • ALL SHAPES • ALL VOLTAGES • ALL TYPES • BUS SUPPORTS • SPLICING KITS AND MATERIALS • INSULATING COMPOUNDS

★ ★ ★

RUSGREEN MFG. CO.
14260 Birwood Avenue • Detroit, Mich.

J. E. FISHELSON is executive vice president of the newly-formed Duralex Co., an affiliate of the Buckeye Aluminum Co. of Wooster, Ohio. Duralex will manufacture housewares and electrical appliances.

sales and will be responsible for directing all sales activities of The Okonite Company and its Hazard Insulated Wire Works Division, as well as those of its affiliate, The Okonite-Callender Cable Co., Inc.

F. E. Bankwitz has been appointed manager of Okonite's Washington, D. C. office to replace R. Soutter who has been granted a leave of absence effective March 1.

D. W. Nurse, formerly of the San Francisco office is now manager of the Portland, Oregon office of The Okonite Company.

In addition to his duties as manager of the Company's Light and Power Department, W. R. Van Steenburgh recently became manager of Okonite's New York Territory, with headquarters at 501 Fifth Avenue, New York City.

Two New Infrared Lamps Announced

CLEVELAND—General Electric Lamp Department, Nela Park, Cleveland, Ohio recently announced two new 125-watt infrared industrial lamps.

One of the new lamps is equipped with a G-30 bulb, and is designed especially for use in open reflector ovens. It has a medium skirted base, 5-inch light center length, and fits infrared reflectors now in general use.

The other new lamp has an R-40 reflector type bulb and a medium skirted base. Average laboratory life for both lamps is rated in excess of 5,000 hours.

Designed to be used interchangeably with the 250-watt and 375-watt G-30 and R-40 lamps, the new models are especially

SOLDERLESS—TAPELESS

Wire Connectors

SOLAR

SCRU-ITS

"MR. SCRU-IT" (Trade Mark)

Solar SCRU-ITS are used for connecting two or more wires without tape, solder, flame or tools. They are economical and easy to use—wire ends are stripped and SCRU-ITS screw right on to form a compact and efficient joint.

SCRU-ITS give better mechanical and electrical contact . . . eliminate possibilities of shorts, grounding and corrosion. Their compact size permits their use where working space is at a minimum.

Available in several sizes for connecting various combinations of wires.

EASY TO USE:

1. STRIP WIRE

2. SCREW IT

3. THAT'S IT with SCRU-ITS!

MILLIONS IN USE • HUNDREDS OF APPLICATIONS

"Roughing-in" or permanent wiring is simplified with SCRU-ITS . . . they thread on with a twist of the wrist . . . and the joint is complete!

- Fixtures
- Outlet Boxes
- Fuse Boxes
- Panel Boards
- Switch Boxes
- Lighting Devices
- Conduit Boxes
- Circuit Breakers
- Switch Controls
- Motor Connections

and many others.

U. S. PATENT NO. 1,933,555

DON'T TAPE
DON'T SOLDER
"SCRU-IT"!

• MADE IN FOUR SIZES

• MAY BE USED WITH SOLID OR STRANDED WIRES

Write for Data Sheet B-2

For complete specifications on SCRU-IT sizes, uses, prices, etc., WRITE TODAY.

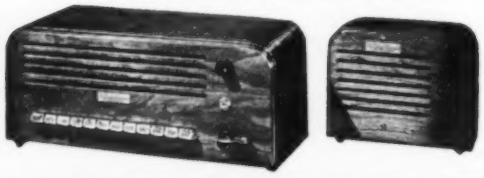
SOLAR ELECTRIC CORPORATION

FACTORY and SALES OFFICES

WARREN, PENNSYLVANIA

Talk-A-Phone IS HERE TO STAY

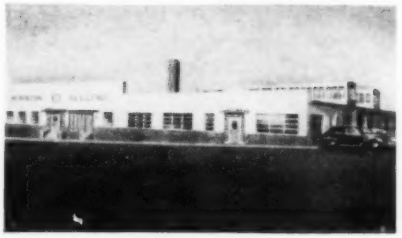
Talk-A-Phone's unsurpassed operation sets a new *high* in efficiency. The most advanced type of construction based on sound and proved engineering principles assures *peak* performance. Talk-A-Phone is here to *stay*, to render supremely satisfactory service. Continuing success and leadership are guaranteed by the staunch time-tested character of the world's most complete line of inter-communication.



A unit for every requirement. Nationally advertised. Sold exlusively through jobbers. For catalog and full particulars address Dept. I A.

Talk-A-Phone Co.
1512 S. Pulaski Road Chicago 23, Ill.

IT CAN'T HAPPEN HERE!
No Sir... No Shock, because VACO screw drivers are shock-proof!
In addition, these gleaming Amberyl handles are break-proof... fit the hand correctly ... grip firmly... do each job requiring the use of a screw driver better, faster, easier!
Write for catalog.
There are 173 types of Vaco screw drivers. Type shown is especially suited for electrical maintenance work.
VACO PRODUCTS CO.
317 E. ONTARIO ST. CHICAGO 11, ILL.
CANADIAN WAREHOUSE: 560 KING STREET WEST · TORONTO 2, ONT.



RECENTLY completed, this new addition to the Hexacon Electric Co., 146 West Clay St., Roselle Park, N. J., added 7000 sq. ft. to the plant's facilities. Larger plant was made necessary in view of record demand for Hexacon's products.

suited to oven applications where it is desired to maintain a given lamp spacing and distribution of radiant energy, but where temperature required is considerably less than that provided with the 250-watt lamps, according to GE lighting engineers.

Wire and Cable Mfr. Increases Facilities

LOS ANGELES — Western Insulated Wire Co., Los Angeles recently announced that it had acquired additional space for its manufacturing, shipping and storage activities.

The move was made necessary by the increased demand for the company's Bronco wire and cable. The company announced that the additional facilities will speed up service to its customers.

APPOINTMENT of Edson Berry Thompson, left, as domestic representative for the Cleveland-Pittsburgh territory and of William S. Maclear as the Kansas and Twin Cities territory representative was recently announced by Toastmaster Products Division, McGraw Electric Company, Elgin, Illinois.

This and That

Electric Toy Novelties

Electric toys this year are interesting—such as cannon that ejects wooden bullets by means of an electromagnet; fluorescent paints that glow under a black light; a pin ball game controlled magnetically; and, more than a toy, a musical instrument looking and acting like a portable typewriter. It has 32 notes. Besides being used to produce music, the instrument provides a method of teaching touch typing.

Portable Electric Washer

Portable electric washing machines, weighing about 18 pounds, are coming on the market. The tub, looking something like a large pressure cooker, acts as agitator as it moves back and forth on the base. It can be lifted off its base and set on the stove for boiling or sterilizing operations.

52 Electrical Home Devices

At least 52 electrical devices—not counting lights—can be used in the average home.

Puts Firefly in the Shade

A white fluorescent lamp is 70 times more efficient than the firefly as a light producer, and a green fluorescent lamp is 100 times more efficient.

OBITUARIES

L. L. Brastow

Lewis Ladd Brastow, first sales manager of the Trumbull Electric Manufacturing Company and editor of the Trumbull "Cheer," died at his home in Plainville, Conn. on January 9 at the age of 72. A member of the Trumbull organization for 40 years, Mr. Brastow was one of the company's first employees. An outstanding figure in the electrical industry, his wide experience in sales and advertising work gave him an enviable reputation in the

E·M·T CONNECTIONS IN A FEW SECONDS!
With B. M. Fittings

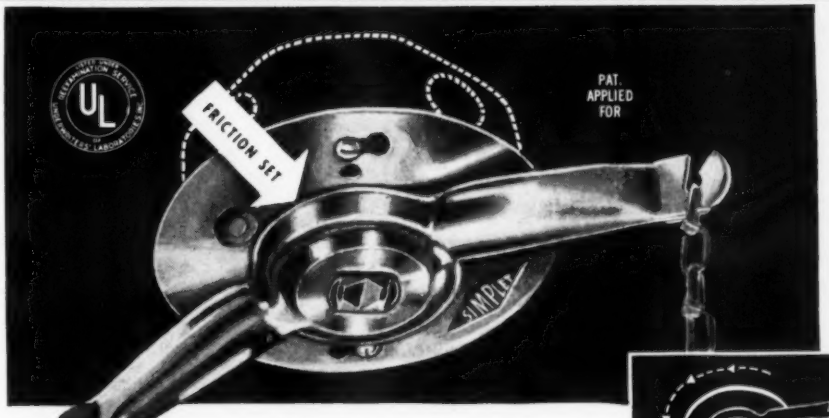
TWO QUICK SQUEEZES give you Finer, Faster Conduit Connections. B-M Fittings do away with the twisting, turning and tightening of nuts and save you valuable time and materials. Then too, they are stronger, neater and much easier to work with in tight places. Start using B-M Fittings today. Have more satisfied customers—more profits from each job!

(All B-M Fittings carry the Underwriters Seal of Approval)

DISTRIBUTED BY

The M. B. Austin Co., Chicago, Ill.
Clayton Mark & Co., Evanston, Ill.
Clifton Conduit Co., Jersey Cy., N. J.
Gen. Electric Co., Bridgeport, Conn.
The Steelduct Co., Youngstown, Ohio
Enameled Metals, Pittsburgh, Penn.
National Enameling & Mfg. Co., Pittsburgh, Pa.
Triangle Conduit & Cable Co., New Brunswick, N. J.

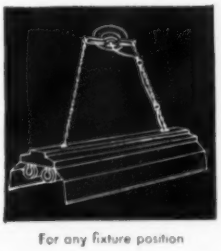
BRIEGEL METHOD TOOL CO. • Galva, Ill.



360° Adjustment

NEW "Friction-Set" FIXTURE HANGER . . .
That Adjust With a Twist of the Wrist!

At last you can get a Fixture Hanger that turns to any angle after being screwed to an outlet box. Although base and receptacle remain stationary, hanger arms may be turned to align with any preconceived lighting plan. Exclusive Friction Ring firmly holds fixture in selected position. Hanger screws on to 3¼" or 4" outlet boxes, no other fastening necessary. Furnished complete with receptacle, two 5' chains, hooks and cord clips.



For any fixture position

Friction-Set K100 . . . List Price $1.10
Write For Bulletin K25

SIMPLET ELECTRIC COMPANY
123 N. Sangamon Street • Chicago 7, Illinois
112 Charlton Street • New York 14, N.Y.

HANG CHAIN SUSPENSION FIXTURES IN A FEW MINUTES

WITH HYDEE HANGER*

Just connect wires – screw to outlet box. No centering, punching, drilling. No tools except a screwdriver.

Complete with receptacle, two 5-foot chains, "S" hooks and cord clips. Self-grounding – you can use 2-wire cord and plug. Fits standard 4" or 3¼" outlet box or plaster ring. $1.65 each list

Day-Brite Lighting, Inc., 5405 Bulwer Ave., St. Louis 7, Mo. Nationally distributed through leading electrical supply houses.

In Canada: address all inquiries to Amalgamated Electric Corp., Ltd., Toronto 6, Ontario.

*Patent No. D-141024, others pending. Underwriters approved

IT'S EASY TO SEE WHEN IT'S DAY-BRITE Lighting

There's tough selling ahead, and no time to lose to

Get your sales force set for the coming sales war

The days of "push-over" selling are dwindling fast. The road to profits grows daily more crowded with alert competition. How do your salesmen rate as contenders in the race getting underway? Have they grown stale without the stimulant of competition? Has the productiveness of your sales force as a whole deteriorated because selling was too easy in the past few years when supplies couldn't keep pace with demands?

YOU can revitalize your selling organization with the help of this new kind of sales manual. It brings together many helpful, time-saving pointers that you can use to recharge your men with the drive and efficiency necessary in a smooth-running, highly-profitable department.

Just Out **REBUILDING THE SALES STAFF**

This volume is a sales tool. It supplies essential facts and tested procedures for developing effective training material and fashioning it scientifically into an individualized training program to suit the needs of your own sales staff. Drawing prudently on practices of a large number and wide range of companies in diverse industries, the book represents only the more successful methods of building up a crack selling organization. Topics covered include recruiting, testing, organization of training material and program, sales manuals, etc.

By Saul Poliak, formerly Research and Conference Planning Divisions, the American Management Association; Vice-President, Capp & Poliak, Inc. 503 pages, 6 x 9, $4.00.

See it 10 days free

McGraw-Hill Book Co., 330 W. 42 St., NYC 18

Send me Poliak-Rebuilding the sales Staff for 10 days' examination on approval. In 10 days I will send $4.00 plus few cents postage or return book postpaid. (We pay postage on cash orders.)

Name.....

Address.....City and State.....

Company.....Position..... EWS-2-47

For Canadian price, write: **Embassy Book Co.**, 12 Richmond Street E., Toronto 1.

industry as well as with editors and representatives of the trade press.

Born in Burlington, Vermont, in 1874, Mr. Brastow attended Phillips Andover Academy and in 1896 was graduated from Yale University where his father was a faculty professor. Shortly after his graduation, he joined the newly formed Trumbull Electric Manufacturing Company. He was appointed Trumbull's first sales manager and instituted the early sales policies of the company which, under his guidance during the following years, helped estab-

Lewis Ladd Brastow

lish the Trumbull Company in its present high position as manufacturers of electrical equipment. Mr. Brastow spent a great deal of time in the field during his 25 years as sales manager and was widely known among distributors and contractors for his business ability, kindly advice and helpfulness.

Recognizing the importance of sales promotion early in his career, Mr. Brastow began publication of Trumbull "Cheer," one of the first house organs to be published. Since 1936, when he gave up his active sales work, he has devoted his entire promotional efforts to "Cheer," which has served as a model for other such publications. The monthly magazine has the distinction of being the oldest house organ in continuous publication under the editorship of one man. At the time of his death, the national circulation of "Cheer" had exceeded 44,000 copies.

Mr. Brastow leaves a widow, Mrs. Ruth David Brastow; a daughter, Mrs. Jonathan M. Peck of West Hartford, and a son, Edward T. Brastow.

C. T. Morison

Charles Theodore Morison, 66, died after a long illness at his home in New Rochelle, N. Y. Mr. Morison was president of the C. T. Morison & Co., electrical wholesaling firm in New York City, until he retired in December, 1944.

Mr. Morison was born in New York City and was associated with the electrical industry for more than forty years. During his career he was affiliated with a number of wholesaling houses, including Manhattan Electric Supply Co., Madison

Electric Supply Co., and Hart & Morison Company.

In 1918 he organized the Morison Electric Supply Co. which was located at 15 East 40th Street. At one time this company operated sixteen branch stores throughout the metropolitan New York area.

Mr. Morison resigned from the Morison Electric Supply Co. in June, 1932. In September 1932 Mr. Morison and Silas Van Etten organized the C. T. Morison & Co. in New York City. Mr. Morison was president and treasurer of the organization.

He retired from the business in Dec. 1944 because of ill health. In 1945 he sold out his interests to Mr. Van Etten.

He is survived by his wife, Mrs. Katherine DeVore Morison; two daughters, Mrs. May Breese and Mrs. Katherine Sarfaty; a son Charles T. Morison, Jr., and a sister, Mrs. Imogene Frank.

C. W. Johnson

Claude W. Johnson, 66, president of the Johnson Electric Supply Co., Cincinnati, Ohio, died September 15, 1946.

Mr. Johnson was well known not only in the electrical industry but as a leading citizen of his community.

He was born May 21, 1880 in Mason County, Kentucky. Following his graduation from Covington High School, Mr. Johnson went to work for the Creaghead Engineering Co. of Cincinnati. He remained with this firm for ten years during which time he studied electrical engineering and mechanical drawing.

In June, 1907 Mr. Johnson became a member of Johnson-Kennedy Electric Co., a wholesaling firm. It was the first company in Cincinnati to handle tantalum lamps.

After three years he bought our Mr. Kennedy's interest in the firm and carried on until his recent death as president of the Johnson Electric Supply Co.

Mr. Johnson was one of northern Kentucky's leading citizens and always took a very active part in community activities. He served as president and a member of the Fort Thomas Board of Education for 17 years. He was instrumental in promoting an improved pay-as-you-go plan for school expenditures, and developing the splendid Fort Thomas school system.

Mr. Johnson took an active part in the work of the Boy Scouts, the Red Cross, relief organizations and was a member of the local Draft Board during the recent war.

He was a member and willing worker of a long list of organizations and clubs. He was a past president of both the Optimists' Club and the Cincinnati Electric Club. He was a member of the Cincinnati Club and the Highland Country Club. He was a Mason and a Shriner. He was president of the Fort Thomas Men's Club and Community House, and a member of the National Electrical Wholesalers Association.

(Electrical Wholesaling was not aware of of the passing of Mr. Johnson until his son, Claude W. Johnson, Jr., informed us in a letter January 29th. For that reason, notice of the death of Mr. Johnson was not given in an earlier issue.)

ReliABle OUTDOOR LIGHTING WITH ABolite

OPEN TYPE FLOODLIGHTS

Efficient and dependable porcelain-on-steel reflector units with arm for mounting on poles, cross arms or sides of buildings. Fine for sports areas, parking lots, filling stations and outdoor industrial lighting. Made in open wiring type or with concealed wiring where underground service is to be used.

SERVICE STATION ISLAND LIGHTS

These attractive porcelain-on-steel units combine fine appearance with efficient pump and island lighting. Also used for lighting safety islands, railroad platforms and parking areas. Made in standard type as illustrated and also in dual type with window in monitor top for illuminating building front or sign.

SOLD EXCLUSIVELY THROUGH WHOLESALERS

Light right with .. ABolite REFLECTORS PORCELAIN ON STEEL

THE JONES METAL PRODUCTS CO., West Lafayette, Ohio

Power Circuit Transformers!

Capacities up to 37½ KVA. single and 3 phase.

The most economical way of providing low voltage circuits for the lighting and operating of machine tools is to run a branch line from the power line, using a transformer to step down the voltage.

Dongan Transformers are being used for this purpose in industrial plants throughout the nation, reducing installation time and also conserving critical materials.

DONGAN ELECTRIC MFG. CO.
2989 Franklin Detroit 7, Mich.

DONGAN TRANSFORMERS
The Dongan Line Since Nineteen-Nine

We Invite Inquiries

For maximum sales per call sell TRICO!

Sell the line that assures a profitable return . . . that builds for the future!

TRICO Electrical, Lubricating and Air Devices have exclusive sales features—something really worthwhile to talk about—backed by national advertising and factory co-operation.

TRICO units are small—easy to show . . . easy to demonstrate. When you sell TRICO you get . . .

- *Maximum sales per call*
- *Steady repeat business*
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PURE CARBON BRUSHES

KIT NO. 3

A low cost assortment of surprising utility—16 items totaling 150 brushes, springs and wicks. Brushes in the kit have been very carefully selected and will serve a wide range of appliances. Springs are provided to fit each brush.

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ASSOCIATION NEWS

CHICAGO – On January 22, the West Suburban Electric League of Chicago held its Tenth Annual Holiday Dinner Party in the Grand Ball Room of the Graemere Hotel, Chicago. At the party, music, dancing, floor show and prizes were enjoyed by all.

BALTIMORE – The following members of the Electrical Manufacturers Representatives Association of Baltimore were presented by the Nominating Committee by Chairman Leo T. McCourt: President, Frank C. Butts; vice president, F. W. Lemly; secretary, Donald Parker; treasurer, C. E. Esposite.

Election of officers will take place at the forthcoming meeting of the Association which will be held at the Engineers Club, Baltimore.

EMRA members were invited to attend the Annual Oyster Roast given by the Electrical Contractors Association of Maryland, held at the Magothy Inn, Riverdale, Anne Arundel County, and many of them attended that shindig.

CLEVELAND–J. E. North, president of the Electrical League of Cleveland, reports that great progress has been made by Cleveland and Northeast Ohio industries during the past year, despite unprecedented problems. According to Mr. North, new and improved electrical applications have proved invaluable in stepping up output, improving quality, and helping to hold down production costs.

He cites as examples: One of the area's outstanding systems of electronic air cleaning at the main building of a large graphite plant where it bettered working conditions and decreased maintenance costs. Electric heating devices assisted production of gelatin capsules by requiring a minimum of attention during gelatin cooking process. A large rubber company boosted its rubber capacity to 1000 percent by installing an infra-red oven for drying the finish on molded rubber products. Two-lamp fluorescent fixtures installed in continuous rows throughout a large printing plant increased efficiency, thereby justfying the lighting installation cost.

1947 appointments of new executive committees for the Industrial Plants and

Commercial Building Sections of the Electrical Maintenance Engineers Association of Cleveland, Ohio, have been announced by S. E. Strunk, secretary of the Cleveland Electrical League.

DETROIT—The Electrical Association of Detroit has selected its new Board of Governors, namely: A. H. Edison, Carl H. Schmidt, Donald T. Mason, Claude W. Messinger, J. P. Davenport, Elmer E. Herndon, A. S. McCloy, J. S. Ecclestone, H. I. McConnell, and A. D. McLay.

The first duty of the new Board of Directors will be the election of 1947 officers.

KANSAS CITY – The first meeting for 1947 by the Electrical Association of Kansas City was held January 21 at the Hotel President at 12:15 P.M.

An unusual motion picture for the business men of the middle west, "This Is Our Land," was presented at this meeting. The picture showed that in the past 150 years more than 100 million acres of farm land has been ruined for any further cultivation and that today we have only 460 million acres of farm land left and fully one-third of this is well on the road to ruin. The motion picture presented a clear picture of what this loss in farm land is doing to the electrical industry's future customers and what it is now doing to each individual person.

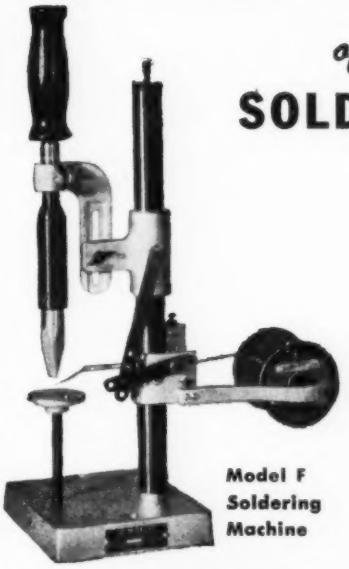
The Association is proud of its record of attendance at Electric Association meetings for the year 1946. Average attendance was 132 – a figure far above anything in the past.

E. J. McGrannahan was elected president of the Association at the annual Christmas Party and Meeting. The retiring president, Walter Frazier, received a wrist watch with his name and term as president of the Association inscribed on the back.

The 100th Anniversary of the birth of Thomas A. Edison will be commemorated at a banquet in the main ballroom of the Hotel Muehlebach the evening of February 11, 1947. Mr. W. A. Hand, the only living "Edison Pioneer" in Missouri, will be an honored guest. An unusual program has been arranged as a tribute to Mr. Edison, the principal speaker being the Honorable Phil M. Donnelly, Governor of Missouri.

Sponsoring societies of this affair are: American Institute of Electrical Engineers,

Sell this Profitable Line of DEPENDABLE SOLDERING EQUIPMENT



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Dependably, substantially built, securing customer-good-will, and resales.

Includes Electric Soldering Irons listing from $5 to $12.25; Soldering Machines $7.50 to $15; Soldering Iron Temperature Control Stands, and other related specialties.

Our products are generally sold by the wholesalers direct to the industrials. Write for catalogs, price lists and Wholesalers' and Retail Discounts.

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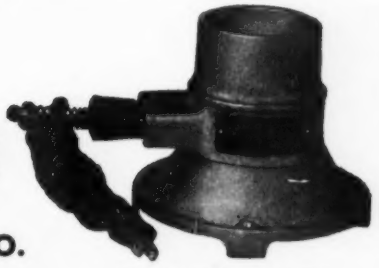

Model 12 Solder Pot

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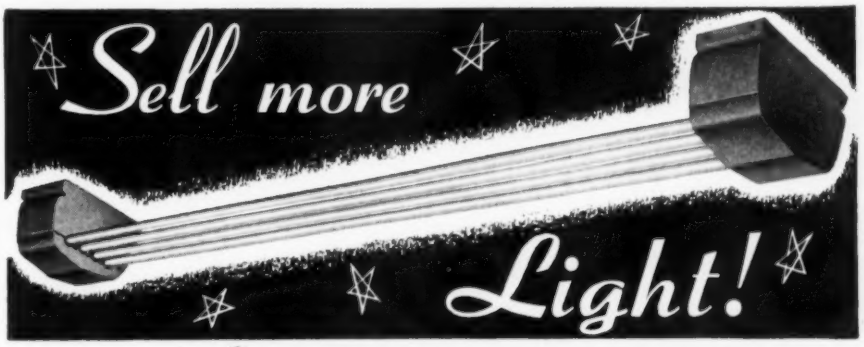

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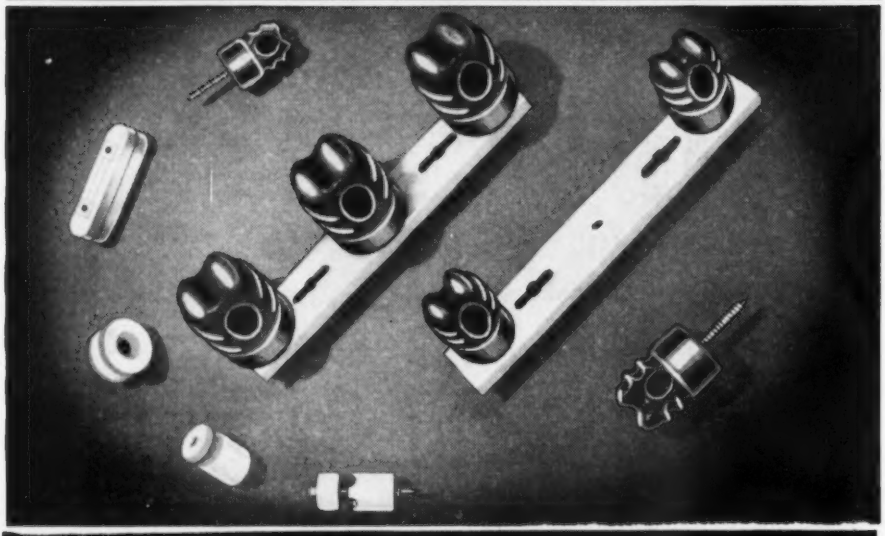
makes Wiring Jobs "Stand Up"



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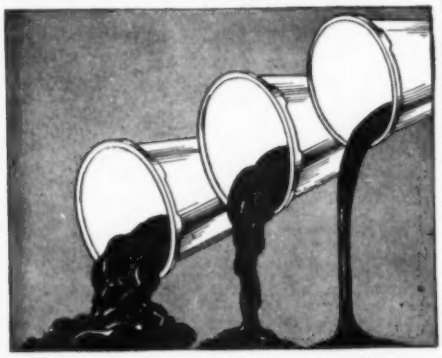
Insulating and Cable-Pulling
COMPOUNDS
of Record-Breaking Performance



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CLOCKS

For all types of electrical switching and time control, Tork Time Clocks will control operations efficiently and automatically. Self-starting, all-electric. A variety of models; for minutes, hours, days, or weeks. Plain or Astronomic Dials.

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WEEKLY CALENDAR WHEEL: Optional feature on all standard models provides for automatically skipping one or more days each week.

POULTRY LIGHTING CLOCKS: Standard models for automatic Bright-Dim lighting equipment control for poultry houses.

RELAYS AND CONTACTORS • SPRING-DRIVEN MODELS • CAM OPERATED TIMERS • CLOCKS FOR SPORTS AND GAMES • SELECTOR WHEELS • TIME DELAY CIRCUITS • FREEZ-ALARM FOR REFRIGERATION PROTECTION

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MOUNT VERNON NEW YORK

Electric Association of Kansas City, Engineers Club of Kansas City, Illuminating Engineering Society, and Institute of Radio Engineers.

NEW ORLEANS – W. A. Feuillan Jr., regional vice president of the Illuminating Engineering Society announces a special meeting of the New Orleans Chapter on February 19th to honor national President G. K. Hardacre and Mrs. Hardacre on the occasion of President's Night, at which the local chapter will be host to the members of the Electrical League, the American Institute of Architects and other engineering and related groups interested in lighting.

Miss Myrtle Fahsbender, first woman chairman of the IES Committee on Residence Lighting will talk on the subject: "Lighting Reveals Room Personality." She will discuss modern trends in home lighting, particularly the developments made since the war's end.

This meeting will also mark the IES observance in New Orleans of the 100th Anniversary of the birth of Thomas A. Edison.

Mr. and Mrs. Hardacre and Miss Fahsbender will be guests of the New Orleans Chapter for the Mardi Gras.

MINNEAPOLIS – All members of the North Central Electrical Industries of Minneapolis, Minn., have received a room reservation form to be filled out for accommodations during the Electrical Industry Convention at Duluth, March 16, 17 and 18. Arrangements have been made with the Duluth Chamber of Commerce to make 400 rooms available.

The Board of Directors of the Minnesota Electrical Council, made up of electrical contractors and dealer organizations in the North Central area, announces the appointment of Jack N. Omvedt as assistant manager, effective December 18, 1946. He will devote his entire time to Council affairs in serving the needs of the greatly expanded membership, which during 1946 increased by 137, bringing the total to 470, the highest in the 14 years of the Council's operations.

Art Swanson was elected president of the St. Paul Electrical Contractors Association at its annual election meeting. Dave Rosecrans is the new vice president and L. J. Tieso will serve as secretary-treasurer for 1947.

The 1947 Directory of the North Central Electrical Manufacturers Club members, together with the companies they represent and their major lines will be distributed early in January to wholesalers, electrical

SPERO
DEPENDABLE
ELECTRICAL PRODUCTS

Spero offers you the convenience of 5 complete lines of electrical products from one reliable source.

1 VAPOR PROOF UNITS

Pendant or bracket types, for 3″ and 4″ outlet box or "x" Type mounting. With or without wire guard and reflector. 50 to 300 W.

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Spero No. 55 & 65, 150 to 500W.

Finishes in "Duralum"—sizes for lamps from 150 to 1500 W. Open types or outdoor weatherproof type with prismatic lens. Also yard lights.

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Shallow and dome-type, one-piece seamless construction, keyless or with pull chain. For 25 to 750 W lamps.

Dome type for 60 to 200 W lamps.

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Die-Cast Sockets with approved porcelains are just one of the items we manufacture for use in electrical construction.

Vertical or 90° angle mounting.

5 FLUORESCENT FIXTURES

SPERO also manufactures more than 30 types and sizes of fluorescent units.

Spero products are distributed only through recognized wholesalers. Write for Bulletin No. 10.

Look for another Spero Advertisement on Page 100

THE SPERO ELECTRIC CORPORATION
18222 Lanken Ave., Cleveland 19, O.

contractors, dealers, purchasing agents for industrial concerns, REA project superintendents and utility companies. The new directory will appear in considerably expanded form to provide for new product listings and will serve as a handy guide to all buyers of electrical goods.

Their program includes attendance at two of the most spectacular and fantastically lighted balls scheduled to close the Carnival on the evening preceding President's Night.

While in New Orleans, President Hardacre will confer with the Convention Executive Committee on plans for the Society's International Convention to be held in the southern city, September 15-22, 1947.

NEW ORLEANS—At a recent meeting of the Electrical Association of New Orleans the election of officers for 1947 took place in the Banquet Hall of the St. Charles Hotel.

President Carl O. Brown opened the meeting by welcoming the group as a whole. Secretary Guidroz was then called upon to read the minutes and financial statement. President Brown's report for the year 1946 was then presented. At the request of the president, A. J. McCall of the Nominating Committee, presented the proposed new slate of officers and Executive Committeemen: the result was that, by unanimous vote, Wayne B. Wands of Wands, Inc., a long time worker for the Association now becomes president.

Other officers for 1947 are as follows: S. L. Drumm, executive vice president; Harry B. Lackey, vice president, Wholesalers, Utilities, Mfrs.; C. C. Walther, vice president, Refrigeration; Walter J. Barnes, vice president, Electrical Contractors; J. O. Crary, vice president, Air Conditioning and Ventilation; A. C. Denny, vice president, Radio; W. E. Clement, director of publicity; J. R. Quidroz, secretary; and I. W. Tufts, treasurer.

Executive Committee: C. W. Nussbaum, C. G. Staubitz, Glenn Wilson, E. N. Avegno, A. B. Lindauer, A. Bruce Hay, B. P. Babin, Fred B. Hartney, Carl O. Brown.

The new president, in accepting the "gavel" thanked the membership and very sincerely pledged himself to forwarding the objectives of the Association.

WASHINGTON, D. C.—The Electric Institute of Washington, D. C. has recently issued an ingenious calendar presentation of its courses for the months of January,

A 'must' in modern fluorescent lighting—

LASSER SURE-GRIP LAMP SOCKETS

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UL APPROVED

Dependable Design..
Rugged Plastic Body..
Sure-Grip Terminals..
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Specify LASSER SURE-GRIP for fluorescent lamp sockets and starter combinations for money-saving speed in assembly operations. Simple dependable design permits easy, one-hand lamp insertion . . . grips lamps and starters securely despite sudden shocks or vibration. Precision workmanship throughout assures long, satisfactory service. Lamp holders sold separately if desired.

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For Dependable Pilot Lights

P&S 1340 — small, compact, versatile — a combination device. Can be installed in multiples of two or three to a gang — or combined with one or two P&S-Despard switches or outlets in a single gang switch box.

Supplied with S-6, 6-Watt lamp and reflector. Rated 75 Watts, 125 Volts. Current consumption is negligible. For maximum safety at minimum operating cost, use P&S 1340.

Keep Your P&S Catalog Handy

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February and March. The date, on which each class is being held is printed in red and the product covered and time devoted to each product appears beside the date.

The brochure folds in three sections, so that it may be conveniently hung on the wall for ready reference and reminder of the dates.

MORE FACTS ON PRODUCTS

Antenna Equipment — Specification sheets on the newly-announced lead-in cables designed to connect antennas with FM and television receivers for minimum transmission loss are available on request to the Specialty Division, G. E. Electronics Department, Wolf Street Plant, Syracuse, N. Y.

When writing mention ELECTRICAL WHOLESALING

Electrical Tools — A 12-page illustrated catalog (46-1) describes the features and operation of the line of electrical tools manufactured by the Crozier Machine Tool Co., 684 N. Prairie Ave., Hawthorne,

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VULCAN Pygmy

ELECTRIC SOLDERING TOOL for delicate soldering tasks

BY THE SAME SPECIALISTS IN ELECTRIC HEAT

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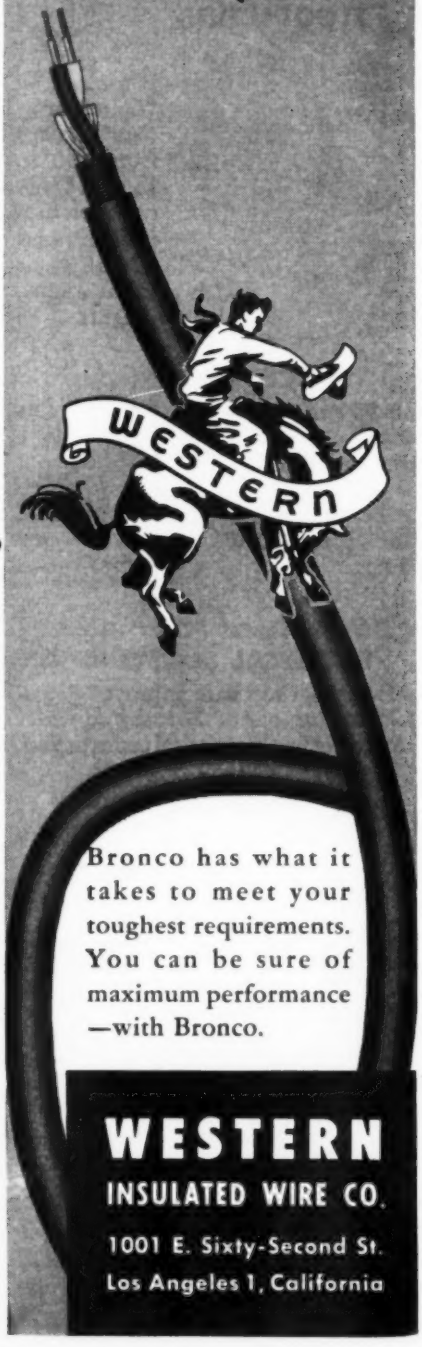

Bronco has what it takes to meet your toughest requirements. You can be sure of maximum performance —with Bronco.

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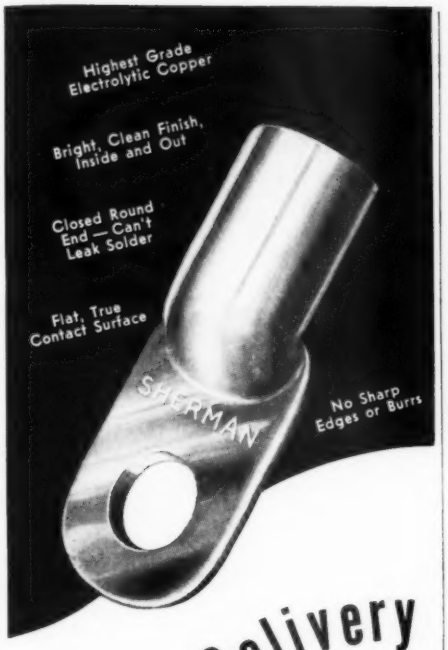
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Bright, Clean Finish, Inside and Out
Closed Round End — Can't Leak Solder
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No Sharp Edges or Burrs
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Prompt Delivery On Soldering Lugs

Yes, Sherman can solve your Lug problem. Put an end to delays and shortages, by ordering these high quality, low cost Sherman Round End Soldering Lugs.

It's easy to make strong, dependable connections with these Sherman Lugs. They are produced on precision machinery. They are acid cleaned, for easy soldering. They are individually inspected. And — they have the exclusive Sherman Closed Round End that can't leak solder.

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STOCK SIZES		
Barrel O.D.	Amp. Cap.	Wire Size
3/16	25	10
1/4	35	8
5/16	50	6
3/8	70	4
7/16	90	2
1/2	125	0
9/16	150	00
5/8	175	000
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13/16	250	250,000CM
Other types and styles available		

Sherman
ELECTRICAL CONNECTORS

Calif. The catalog includes information on the various models of the vacuum-grip speed lathe for odd shaped parts that cannot be held by chuck or collet, tool post turrets equipped with cutting-off tool and holder, collet attachments, collets and surface plates.

When writing mention ELECTRICAL WHOLESALING

Bactericidal Lamp—A 4-page folder, (Bulletin No. 108) issued by Fluorescent Fabricators, Div. of EZI Corp., 3825 Olive St., St. Louis 8, Mo., describes the company's portable bactericidal lamp and illustrates typical application photos of the lamp in schools, homes, hospitals, meat storage areas, etc.

When writing mention ELECTRICAL WHOLESALING

Farmstead Wiring—A comprehensive 44-page booklet (B-3874) covering steps of farm electrification and wiring, has been especially prepared for contractors, wholesaler's salesmen, dealers and farmers by the Westinghouse Electric Corp., 306 Fourth Ave., Box 1017, Pittsburgh 30, Pa. The booklet lists many electrical applications for the farm—dairy, poultry, shop and machinery shed, crops, water supply, and the home—tells their value to the farmers, and the electric requirements of each. Twenty-five cents per copy.

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CANDLE FLAME LAMPS
for
INCREASED FIXTURE
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The Full lustrous beauty of candelabra crystal and polished fixtures is effectively emphasized by Candle Flame Lamps. Lighted and unlighted, they add charming realism to all candle type fixtures. Invite additional fixture and bulb sales by featuring Candle Flame Lamps. Candle Flame Lamps are available now for prompt delivery.

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NORTH AMERICAN *Electric Lamp Co.*

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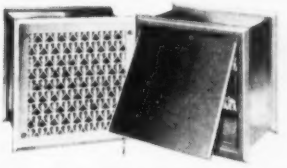
EASY TO SELL



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Quiet, powerful, dependable operation! Simple to use. Pull chain starts and stops fan, opens and closes outside door. Adjustable to wall thickness. Smart, interior grill.

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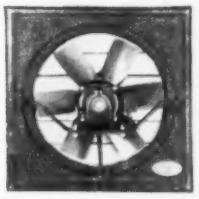

6 BLADE EXHAUST FAN
For offices, factories, stores, etc. Heavy duty fan with shutters attached. Resilient mounted sleeve bearing motor. Heavy gauge steel used throughout.

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BELT DRIVEN EXHAUST FAN
Economical air conditioning for commercial, industrial and attic purposes. Of heavy gauge steel with heavy duty standard make motor. Built and priced to sell.

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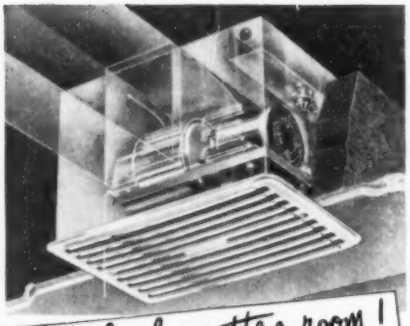

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CLIPPER BLOWERS

KITCHENS, bathrooms, ticket booths, X-ray rooms, toilets, clinics and numerous others are the forgotten rooms of every building. *They badly need ventilation* and Clipper Ceiling Blowers are specifically designed to do the job better—at a good profit to you.

Clipper Blowers are mounted between ceiling joists and vented outside. They trap and expel unwanted air, heat and odors the instant they rise.

The Clipper is NOT a blade-type fan, but a quiet squirrel cage blower—a complete packaged unit—that moves a volume of air under pressure. Its patented construction with the motor entirely removed from the air stream, means greater efficiency, longer life, easier servicing.

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Industrial Lighting—Research and Testing—A booklet, covering the activities of the Benjamin Laboratory, has been published by the Benjamin Electric Mfg. Co., Des Plaines, Illinois. It describes the laboratory's electrical section, where measurement of electrical characteristics and experimental work are conducted; the physical test section which includes the weather-ometer, temperature control chamber, salt fog machine, humidity chamber; and other devices for testing lighting equipment quality.

When writing mention ELECTRICAL WHOLESALING

Kitchen Appliances—A 16-page full-color booklet entitled "The G. E. Electric Sink Does the Hard Work in My Kitchen" shows how company's new automatic dishwasher and disposal operate, how they save labor and money. This publication is available at five cents per copy. General Electric Co., 1285 Boston Avenue, Bridgeport 2, Conn.

When writing mention ELECTRICAL WHOLESALING

Renewable Fuses—A 24-page booklet (#206-A) extensively illustrated with drawings and charts, has been prepared by the Trico Fuse Mfg. Co., 2948 No. 5th St., Milwaukee 12, Wisconsin. This book-

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Many territories open for our well known "KEIL" electric push button, door opener, mail box and electrical specialties line. Representatives acting as individuals preferred rather than agency organizations.

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Economical . . . dependable . . . precision engineered for 100% satisfactory service

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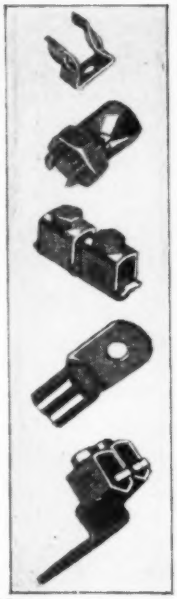

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CEMENTED CARBIDE
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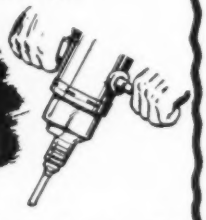
FASTEST CUTTING! FASTEST SELLING!



1 Drills 4 times faster through all types of masonry!
2 Stays sharp up to 50 times longer!
3 Drills clean, sharp, true-size holes . . . close spacing without break-through!
4 Drills far quieter!
5 For use in any rotary drill, drill press or hand brace.

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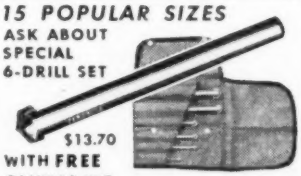
ASK ABOUT SPECIAL 6-DRILL SET



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let entitled "The Inside Story of Trico Renewable Fuses" gives helpful information for maintaining production by eliminating unnecessary shutdowns and tells how to get maximum protection for the more expensive equipment, etc.

When writing mention ELECTRICAL WHOLESALING

Show Case Fluorescent Fixtures and Accessories—A folder has been published by the Artcraft Fluorescent Corp., 248-274 McKibbin St., Brooklyn 6, N. Y. that illustrates and describes the company's stainless steel fluorescent show case lighting fixtures, plated brass fittings and parts, and show case mounting brackets.

When writing mention ELECTRICAL WHOLESALING

Television—A folder on RCA Victor television receivers in which the four initial models are described and illustrated in detail was announced by the Radio Corporation of America, Camden, N. J. The folder, prepared for dealer distribution to consumers, describes four important television developments incorporated in these new television receivers.

When writing mention ELECTRICAL WHOLESALING

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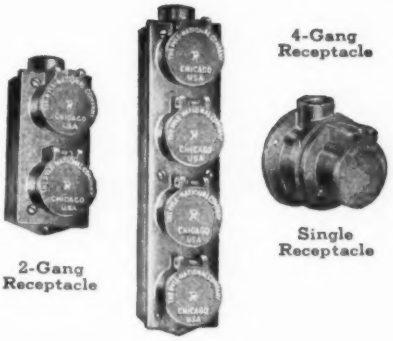
Plugs and receptacles



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ADVERTISERS' INDEX

A

Accurate Mfg. Co. 10
Acme Electric Corp. 26
Adam Electric Co., Frank 22
Allen Co., Inc., L. B. 142
All-Bright Elec. Prod. Co. 37
All-Plastic Mfg. Co. 24
All-Steel Equipment, Inc. 33
Anaconda Wire & Cable Co. 54
Ansonia Elec. Div. of Noma Electric Corp. 20, 21, 45
Appleton Electric Co. 69
Arrow-Hart & Hegeman Elec. Co. . 49
Artcraft Fluorescent Corp. 114
Asquith Associates 40
Austin Co. The M. B. 36

B

Berns Mfg. Co. 141
Briegel Method Tool Co. 133
BullDog Elec. Prod., Inc. 66, 67
Burgess Battery Co. 116
Bussmann Mfg. Co. . . . . Back Cover

C

Cannon Electric Development Co. 115
Carboloy Co., Inc. 142
Certified Ballast Mfrs. 43
Certified Starters 41
Champion Lamp Works 35
Clark Controller Co., The 18
Clifton Manufacturing Co., Inc. . . 8
Compco Corp. 112
Conduit Pipe Products Co. 47
Cornish Wire Co. 143
Crescent Ins. Wire & Cable Co. . . 111
Crouse-Hinds Co. 70, 71
Curtis Lighting, Inc. 15
Cutler-Hammer, Inc. 58

D

Day-Brite Lighting, Inc. 42, 134
Display Lighting, Inc. 117
Dongan Elec. Mfg. Co. 135

E

Economy Fuse & Mfg. Co. 1
Electric Soldering Iron Co., Inc. . . 137
Enameled Metals Co. 16

F

Faraday Electric Corp. 118
Faries Mfg. Co. 39
Federal Elec. Prod. Co. 56
Fluorescent Equip. & Mfg. Co. . . . 108
Fullman Mfg. Co. 119

G

Garden City Plating & Mfg. Co. . 60, 61
Gedney Electric Co. 121
General Day-Lite Co. 23
General Electric Co.
Apparatus Dept. 11
Lamp Dept. 72
General Luminescent Corp. 137
General Mills, Inc. 27
Goodrich Chemical Co., B. F. . . . 29
Goodrich Electric Co. 123
Greenlee Tool Co. 120
Guth Co., Edwin F. 9

H

Hazard Ins. Wire Works Div. 62
Holdenline Company 34

I

Ideal Industries, Inc. 48
Ilsco Copper Tube & Products, Inc. 142

J

Jackson Electrical Co. 128
Jefferson Elec. Co. 64
Jenkins Bros. 31
Jones Metal Prod. Co., The 135

K

Kahn Mfg. Co. 17
Killark Elec. Mfg. Co. 38
Klein & Sons, Mathias 122

L

Lasser Mfg. Company 139
Leader Elec. Mfg. Corp. Inside Front Cover
Lighting Products, Inc. 12
Litecontrol Corp. 96
Lithonia Lighting Prod. Co., Inc. 108
Littelfuse, Inc. 13

M

McGraw-Hill Book Co. 134
Minerallac Electric Co. 138
Mitchell Mfg. Co. 102

N

National Electric Products Corp. . 104
Noma Electric Corp. 20, 21, 45
North American Elec. Lamp Co. . . 141

O

Okonite Co. 62
O. Z. Electrical Mfg. Co. 25

P

Paragon Electric Co. 125
Pass & Seymour, Inc. 140
Penn-Union Electric Corp. 19
Phil-Mar Electric, Inc. 46
Pittsburgh Reflector Co. 32
Plymouth Rubber Co. Inside Back Cover
Porter Corp., J. E. 52
Pure Carbon Co., Inc. 136
Pyle-National Co., The 143

Q

Quadrangle Mfg. Co. 145

R

Radix Wire Co. 128
Revere Electric Mfg. Co. 44
Richter Metalcraft Corp. 127
Rittenhouse Co., A. E. 129
Rome Cable Corp. 7
Royal Electric Co. 124
Rusgreen Mfg. Co. 130
Russell & Stoll Co., Inc. 126

S

Sangamo Electric Co. 14
Sherman Mfg. Co., H. B. 141
Signal Electric Mfg. Co. 144
Simplet Electric Co. 133
Slater Elec. & Mfg. Co., Inc. . . . 130
Solar Electric Corp. 131
Spang-Chalfant, Div. of the National Supply Co. 86
Spero Electric Corp. 100, 139
Square D Company 4

T

Talk-A-Phone Mfg. Co. 132
Thermador Elec. & Mfg. Co. 6
Thomas & Betts Co., The 90
Tork Clock Co. 138
Trade-Wind Motorfans, Inc. 142
Trico Fuse Mfg. Co. 136
Trine Manufacturing Corp. 142
Trumbull Elec. Mfg. Co., The . . . 30

U

U-C Lite Mfg. Co. 126
Universal Clay Products Co., The . 138

V

Vaco Products Co. 132
Virden Co., John C. 28
Vulcan Electric Co. 140

W

Ware Brothers 106
Western Insulated Wire Co. 140
Westinghouse Electric Corp. Lamp Div. 2, 3
Wheeler Reflector Co. 113

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